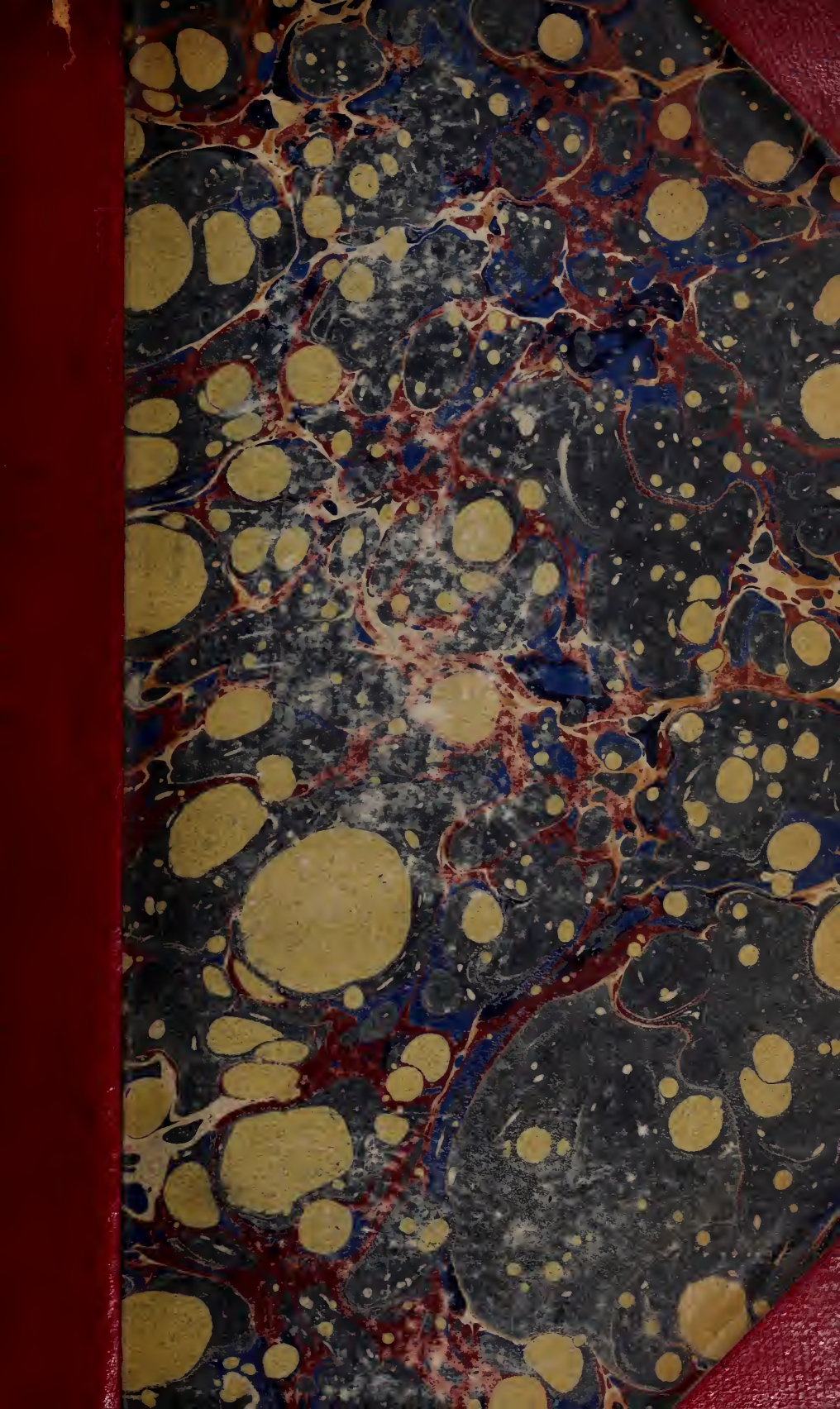

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THE

CHICAGO

MEDICAL JOURNAL.

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VOL. II.

CHICAGO:

JAMES BARNET, BOOK AND JOB PRINTER, 189 LAKE STREET.

1859.

THE CHICAGO

MEDICAL JOURNAL.

VOL. II. JANUARY, 1859. No. 1.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

REPORT OF A CASE OF DEFORMITY FROM FRACTURE, SUCCESSFULLY TREATED BY A NEW METHOD.*

(ADDRESSED TO THE SOCIETY OF SURGERY OF PARIS.)

BY DANIEL BRAINARD, M. D., CORRESPONDING MEMBER.

During the course of the year 1853, the author of this report published, at Paris, a *Memoire sur le traitement des fractures non reunies et des difformites des os*, in which was proposed a new method of treatment for certain of these deformities, such, for example, as irregularity of bones resulting from badly treated fractures. The method of treatment proposed consisted in weakening the bone by sub-cutaneous perforation, and causing it to soften by the inflammation thus excited, and then straighten-

* This Report was presented and read to the Society of Surgery, at one of its sittings, in October, 1858, by Baron Larrey, for the author. It was ordered t inserted entire in the bulletins, and was printed in the *Gazette des Hopitaux*.

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ing it by pressure applied gradually or suddenly by the hands. The facts adduced in that *Memoire* in favor of this method of treatment were the results of experiments on the bones of living animals, principally dogs, and some figures were given of bones bent and partially fractured by such treatment.

I had not, however, at that time had occasion to apply the treatment on the human subject; nor, until recently, has an opportunity for so doing presented. The case herein reported is the first and, at the present time, the only one in which the application of the method has been deemed advisable.

Case.—May 15th, 1858, a stout boy, named John O'Connor, aged three years, was brought to me for treatment on account of a deformity of the left leg.

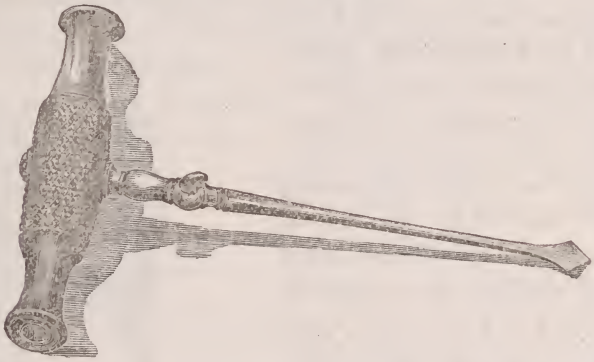
History.—When but three months old, this boy received a severe fall from the arms of his mother, by which the bones of the leg were fractured. As the child was too young to walk, and the parents were extremely ignorant, little attention was paid to the injury, and no treatment was made use of. It was only when he grew older and attempted to walk that the extent of the deformity became apparent.

(Fig. 1.)

Present State.—The left leg is three inches shorter than the other, and presents an angularity forwards a little below the middle. When the child walks, the lower part of the tibia rests upon the dorsum of the foot. There is no swelling or tenderness at the point of fracture. (The appearance of the member at this time is perfectly represented by the photographic figure marked 1.)

Operation.—The child having been placed under the influence of chloroform, a perforator, one-fourth of an inch in breadth, was passed in two different directions through the tibia at the point of fracture, but a single puncture being made through the skin. (Fig. 3 represents the form and is half the size of the

(Fig. 3.)



instrument employed.) After the perforator was withdrawn, a piece of adhesive plaster was placed upon the puncture through the skin, and a light bandage placed around the member. The leg lying at the time upon a firm bed, I attempted to rupture the callus with my hands, by throwing nearly the whole weight of my body upon it. It did not, however, yield in the slightest degree, and not thinking it safe to use more force I desisted, and ordered the bandages to be kept wet with cold water.

The inflammation which followed this operation, and the efforts to straighten the member, was considerable, and an erysipelatous redness extended from the ankle to the knee, which lasted more than a week. There was no suppuration, and by rest and the use of evaporating lotions, this was dissipated; and at the end of ten days, viz: on the 25th May, 1858, another attempt to straighten the leg was made.

Although hoping for a favorable change, I was somewhat surprised to find that a very moderate degree of force, applied by the hands, was sufficient to cause the callus to give. A carved wooden splint, well padded, with a foot piece, was now placed behind the leg, and secured to it by a roller drawn across the angular projection as tightly as could be borne. This giving rise to no pain, the bandage was re-applied, every

three days at first, afterwards once a week, for four weeks, at the end of which time the leg was quite straight, except a slight overlapping of the fragments. During this part of the treatment, the boy walked about with the splint on his leg and suffered no pain. The parents were directed to press upon the projection daily with the hands.

At the present time, August 25th, more than three months after the operation, the leg presents the appearance represented in the photographic figure marked 2. The splints have been discontinued; there is no swelling nor tenderness of the part; the boy walks well, and the cure seems complete.

(Fig. 2.)

The means hitherto resorted to for the cure of deformities, such as that presented in the above case, are section or resection of the callus, and extension, sudden or gradual. It is not my intention to offer any reflections upon the value of these methods; but it may safely be asserted that they are all severe, and attended with danger, excepting the last, which is insufficient in all except recent cases.

The method which I have proposed, and of the successful application of which the above case is an example, is founded upon the fact, well known at present, that bone is softened by inflammation. In the *Memoire* to which I have referred, I have attempted to show that by perforation and the inflammation thence resulting, bones may be so much weakened as to be bent and partially broken like stems of green wood with the appli-

cation of but little force. This case shows that the same is true in a more marked degree of callus.

Surgeons have long felt the want of a means to soften deformed callus. The use of fomentations, baths, frictions, applications of oil, etc., are sufficient proofs of this fact.

M. Malgaigne, in his classical work on fractures (page 333), says, an important question to be solved is to know if our art possesses any means for softening callus, so as to cause it to yield more easily; and after referring to the means above enumerated, and others, he concludes that none of them are deserving of confidence. It is this want which I hope to supply by the introduction of a new method of treatment.

In conclusion, permit me to add that I do not advise the resort to this method in every case. The age and good health of this patient, the superficial situation of the tibia (the only bone operated on), are all circumstances favorable to success; still, I am not without the hope that it will be found applicable in a considerable variety of cases hitherto regarded as incurable, or in which more severe operations are regarded as necessary.

Chicago, August, 1858.

REMARKS ON THE MEANS HERETOFORE EMPLOYED FOR REMEDYING THE DEFORMITY RESULTING FROM FRACTURE.

It may interest many of the readers of the *Journal* to present, in a concise form, a view of the principal means hitherto invented for the remedy of these deformities. They are—

I. Mechanical Force gradually applied.

This may be done by simple extension, when union has taken place with the bones, in a straight direction. Although this has been recommended, and is still enumerated among the means to be tried, it is evident that it can only be applicable where the union is still soft. Lateral compression may be resorted to in angular deformities with better chances of succeeding, since the fragments can, to a certain degree, be employed as levers. This method is applicable for four or six weeks after the union has seemed firm, and in some cases longer still. Various mechanical contrivances have been resorted to in these cases, but they have not been found generally useful.

II. Section or Resection of the Callus.

This consists in cutting down upon the callus and dividing it with a saw or chisel, or in sawing out a wedge-shaped piece, as has been recommended by Barton in certain forms of anchylosis. In many cases of firmly consolidated fractures this is the only recourse except amputation. Were I to meet with a case in which the callus could not be divided with the instrument I have described by the sub-cutaneous method (and I think there may be many where only a smaller one could be made to perforate perfectly formed callus), I should have the shaft of it made sufficiently strong to be used as a chisel, and after placing the point of it in contact with the callus, strike it with a mallet until the perforation is accomplished. Resection or section, unless by the sub-cutaneous method, is a severe operation—converts a simple or united into a compound fracture. The dangers of such a proceeding it is desirable to avoid.

III. Forcible Rupture.

Where a bone has united in an unfavorable position, and this is discovered before the callus has become too firm to be broken by the hands of the surgeon, the best way of proceeding is to put the patient under the influence of chloroform, rupture the callus, re-adjust and dress the fracture. I have succeeded perfectly by this method in two cases brought to me in a bad condition, and have met with another where the patient made a false step in walking, fell and re-fractured the leg. A re-adjustment remedied the deformity which existed previously to the second fracture.

IV. The Seton.

Weinhold, in a case of deformity after fracture of the femur, drilled a hole through the callus and inserted a seton. About the seventh week the callus began to yield, and the limb was made good by extension.* The use of the seton for this purpose is founded upon physiological principles perfectly correct. My experiments have proved that foreign bodies of every kind left in contact with bones cause absorption, particularly if the body be not metallic, and causes suppuration. It is well known that

* Malgaigne's Operative Surgery, p. 188.

fragments of bone in comminuted fracture prevent union from taking place. The justice of Dr. Weinhold's views in this particular is the more remarkable when contrasted with those of so many eminent surgeons, who have recommended not only setons, but pegs of ivory, etc., to be placed and kept between the fragments of fractured bone for the purpose of obtaining union.

ARTICLE II.

CEPHALIC VERSION.

BY J. H. BROWER, M.D., OF LAWRENCEBURGH, IND.

At one of the annual meetings of the Ohio State Medical Society, I had the pleasure to listen to the reading of a prize essay upon "Difficult Labors, and their mode of treatment," by Prof. M. B. Wright, of Cincinnati, which, for justness and originality of views, and correct modes of treatment, is, in my opinion, entitled to the favorable notice of the profession, and places its author in an exalted position, as a close and accurate thinker and distinguished obstetrician. The subject of shoulder presentation formed the theme of the essay, and I propose to give a condensed *resume* of the most prominent and interesting points discussed in it.

Although presentation of the right or left shoulder of the fœtus at the brim of the pelvis is of comparatively rare occurrence, yet most obstetricians of extended practice have occasionally met with instances of it; and as the motto of every accomplished accoucheur should be "semper paratus," their comparative infrequency affords no justification for the plea of ignorance, or want of tact and adroitness in the necessary manipulations. Distinguished obstetricians, of high authority with the profession, have differed widely in their views and advice, as to the best mode of treatment of such presentations. Denman, among the most reliable, strongly avers, that as nature is adequate to the accomplishment of her own wise designs, they may be left with safety to the spontaneous action of the uterus, which, by its alternate contractions, causes the

shoulder presenting to be moved from its position until the head or breech occupied its place, and become the fixed presentation. That this "spontaneous evolution of the fœtus," so called by Denman, may and has occurred, is not doubted; but we opine, that in the present state of our knowledge, no conscientious or competent physician will calmly stand idle and witness the prolonged agonies and protracted sufferings of a patient, during spontaneous expulsion at the full term of gestation.

Dr. Douglas, of Dublin, the accuracy of whose views has been acknowledged by more recent writers, gives a different explanation of the manner in which spontaneous delivery is accomplished in shoulder presentations — which is beyond doubt more correct, to which the expression, "*spontaneous expulsion*," may be more correctly applied.

Dr. Churchill says, "the head and the shoulder depressed in the pelvis are fixed, and the remainder of the body, doubled up, is inch by inch forced into the pelvis and through the external parts, until all below the arm is expelled, leaving the case to terminate as a breach or foot presentation." At no part of the process is the arm at all retracted, but if moved at all, it is still farther protruded. A labor of this description requires unparalleled voluntary efforts, and necessarily involves extreme suffering of body and mind, and extreme danger during or soon after delivery, or incurable injury and ruined general health. The practical question is, shall the physician stand idle and hope for delivery by the intense and protracted suffering of his patient by either of these modes of *spontaneous evolution* or *spontaneous expulsion*, or by a recourse to a more humane and scientific procedure, accomplish a delivery, "cito, tute, et jacunde?"

Among American authorities, Dr. Dewees, after admitting that spontaneous evolution has never occurred in his practice, says, "I should therefore recommend waiting for this spontaneous evolution, whenever turning (podalic version) forbade the hope of saving the child, provided the labor be not complicated by some accidental circumstances, such as flooding, convulsions, syncope," etc. He quotes Dr. Merriman as saying, "the occurrence of the spontaneous evolution has been comparatively so rare

that no man would be justifiable in simply relying upon it. The knowledge that it has sometimes happened may, indeed, under some circumstances of extreme resistance to the passage of the hand into the uterus, reconcile us to the delay which I have recommended, but we should never allow it to operate upon our minds so as to induce us to neglect the proper means and proper time of turning, when we have it in our power. It is the duty of the accoucheur on all occasions to give nature every possible opportunity of exerting herself for the relief of the patient; but it is equally his duty, when nature becomes embarrassed and oppressed, to interpose the timely assistance of art, lest nature being compelled to relinquish the task, the patient shall fall a sacrifice to the delay."

Dr. Davis, in his Elements of Operative Midwifery, concludes some observations on this subject with the following words: "If, therefore, we suppose the child to be already dead, or the circumstances of the labor to be such as to make it impracticable to bring it into the world alive by means of turning (podalic version), or even to perform that operation at all without exposing the mother to extreme danger, it would then, in my opinion, be the unquestionable duty of the practitioner to effect the delivery by embryotomy." According to Velpeau, only twelve children were alive after spontaneous expulsion out of 137 labors.

From these extremely vague and even contradictory views of the proper management of shoulder presentations, it will be readily perceived how unsatisfactory are the authorities cited in deciding upon their relative merits. The questions now arise,—

1st. In what manner can a change of presentation be accomplished most easily and successfully?

2d. What mode of proceeding will prove most favorable for the mother?

3d. How may the life of the child be best preserved?

4th. Can any mode of delivery be relied on exclusively?

Two modes of delivery, besides those already alluded to, have been described by obstetrical writers, viz: *podalic version*, or turning by the feet, and *cephalic version*, or turning by the head. Strictly speaking, however, cephalic *version* is not performed, if version and turning are used as synonymous terms.

When to expedite labor we substitute the head for the shoulder, we simply remove one part that the other may occupy its place. Dr. Dewees, and Prof. Bedford in his translation of Dr. Chailly's Treatise on Midwifery, are silent upon the subject of cephalic version in shoulder presentations. Prof. Meigs remarks, "It may be that those old practitioners of the days of Queen Elizabeth may have sometimes succeeded by pushing up the presenting shoulder in getting the head at last to come to the strait again, but such an event in any case appears to me most improbable." Prof. Heuston says, "The practitioner will experience great difficulty, and most likely fail, in attempting to bring down the head in a favorable position when the shoulder presents. I am satisfied, from considerable experience, that when the arm, shoulder, breast, back, or side is the presenting part, it is better to bring down the feet at once while the condition of the uterus is favorable for turning, than to waste time in attempting to restore the head." Prof. Miller uses the following language: "Cephalic version has but few advocates at the present day, and is confessedly applicable to such a limited number of cases that it is scarcely worthy of our formal consideration. For this reason, and because I have no experience of it, I shall confine my observations to podalic version. Again, it is manifest that all attempts forcibly to pass the hand between a powerfully contracted uterus and the fœtus must be extremely painful, and may cause fatal rupture of the organ. The only resort is mutilation of the child, either by eviscerating its trunk, to enable the operator to extract it doubled upon itself, in imitation of the natural process of duplication, or by duplicating it in order that the body and head may be separately extracted." Dr. Churchill says, "Should version by the feet be impracticable, we must open the chest of the child and eviscerate, after which it may be extracted by the crotchet." Dr. Ramsbotham claims that of the three modes of treatment, that of raising the shoulder and bringing down the head would be the safest for the child, because there would then be little chance of pressure on the funis." The opinions of Velpeau are thus expressed: "Cephalic version may be attempted,—1st, in a well-formed pelvis, where no other accident has happened except a vicious position of the

fœtus, and the head is found in an inclined position in the vicinity of the strait; 2d, in presentations of the shoulder, back, or anterior part of the thorax, *provided the arm is not prolapsed*, and the uterus not too much contracted; lastly, it seems proper to try it whenever the feet are further removed from the strait than the head is, and where it is probable the labor would terminate spontaneously if the head were at the strait." Chailly admits that delivery by cephalic version "will be as happy for the infant and mother as if the vertex had originally presented," but advises it only before the rupture of the membranes.

After this hasty outline of the views entertained by several reliable authorities, Dr. Wright proceeds to detail his own treatment of several cases of shoulder presentation, five in number, in all of which the membranes had been ruptured, and in which delivery was speedily effected by cephalic version, with entire safety to the mothers and life to two of the five children. Dr. W.'s mode of manipulation was as follows: the patient being on her back across the bed in the usual position for turning, the prolapsed arm when descended having been returned by introducing the right hand, the shoulder and thorax were grasped and the body thus pushed upwards, and laterally, by which manœuvre, the head was brought near the axis of the pelvis; he then relinquished his hold of the body, and grasping the occiput, brought it down so as enable the head to engage.

The result of five cases of shoulder presentations which have come under my own notice in an extended obstetric practice of thirty-five years, fully confirms the views of Prof. Wright. In one which occurred at an early period of my practice, instructed by the precepts of Denman and Francis, the case was left to the hazards of spontaneous evolution; the fœtus was, indeed, at length involved, but at the expense of such prolonged and agonizing torture, and such utter ruin of health of the mother, as to impress me most strongly with the truth that although *a meddlesome midwifery is bad*, yet that tardy and irresolute action is often followed by a greater amount of evil. In the second case, the presentation was distinctly made out immediately upon the rupture of the membranes, and I determined at once to attempt to bring down the feet and thus effect

the delivery. By the aid of bleeding, opium and tart. antim., this was effected, though with great difficulty and at the expense of the life of the child, which was destroyed by pressure upon the funis during the descent of the head. Two years subsequent to this, the same lady demanded my services, having had strong pains for two or three hours prior to my arrival. I found the left arm projecting from the vagina, the water escaped, and the os uteri fully dilated. Having in the interim become acquainted with Velpeau's opinions, I determined to attempt cephalic version, and after returning the prolapsed arm by bending the forearm until the hand was directed to the upper part of the vagina, and then pushed up until it ascended above the brim of the pelvis, the head was found resting on the right side of the pelvis, with the occiput in front and the face toward the promonotory of the sacrum; by steadily applying gentle force to the shoulder, laterally and upwards, during the intervals of expulsive effort, the body was moved until the breech had ascended to the fundus of the uterus, the face and vertex gradually descending until it became the presenting part. As, during the absence of uterine contraction, the vertex seemed disposed to return to its original malposition. I gave infus. ergot so as to induce its peculiar action in keeping up continuous contractile effort, by which means the labor soon completed with safety to both mother and child. In the third and fifth cases, in which I was concerned in consultation, laceration and rupture of the uterns resulted from imprudent attempts to bring down the feet, and the force employed in a fruitless effort to change the presentation. In the fourth case, under my own care, cephalic version was readily accomplished with the aid of the forceps, with no other accident save a slight laceration of the scalp, from peculiar difficulty in adjusting the blades of the instrument.

The results of these cases fully justifies us in declaring—

1st. That at an early period in labor, and especially if called before a rupture of the membranes, a shoulder *may* be converted into a vertex presentation more easily than turning by the feet is ordinarily performed.

2d. That although the membranes may have been long

ruptured, turning by the hand can be accomplished with great facility.

3d. That delivery by cephalic version may be speedily effected after repeated and ineffectual efforts have been made to turn by the feet.

4th. That cephalic version should receive a prominent, nay, leading place as a means of expediting delivery in shoulder presentations.

The second of the questions already proposed is, What mode of proceeding will prove most favorable to the mother?

Dr. Churchill observes: "From the distance the head has to traverse in podalic version, and the difficulty of seizing the feet and of turning the child in utero, there must ever be a fearful risk of injury to the mother." From Dr. Lee's tabular views, we find that out of seventy-one cases of shoulder presentations, in which turning of the feet was resorted to, seven died from rupture and three from inflammation of the uterus. In cephalic version, the hand does not enter the cavity of the uterus, and, consequently, neither its walls nor any portion of them are forcibly pushed out. The fœtus is moved comparatively little within the uterus, the head being already near the superior strait; while in podalic version the part to be first delivered is most remote from the canal through which it must pass. In the former, the injury to the mother cannot result without great awkwardness on the part of the obstetrician, while in the other we have reason to feel surprised at the escape of injury. In turning by the feet, the hand must necessarily be moved considerably within the uterus, and often while it is contracting violently. In turning by the head there is but little, if any, direct contact of the hand within the uterus. In the one case, contusion of the uterus by the hand is to be expected; in the other there is no injury because there is no contact. Turning by the feet may occasion a severe nervous shock; not so in changing the shoulder for the head.

How may the life of the child be best preserved? is the third question to be answered.

The mortality in shoulder presentations is, doubtless, greater than in turning by the feet in all cases, which Churchill states

as one in three. A timely resort to cephalic version gives to the fœtus almost as much certainty of life as if the presentation had been originally in the head, for the manœuvre amounts to but little more than in rectifying deviated head positions. In 1826, Bush gave an account of fifteen cases, in which fourteen were born living. In 1827, Ritgen collected forty-five successful cases. Rucke has had sixteen cases. Prof. Wright says, "In all the cases treated by myself, from the beginning, the children were born alive. The liability to compression of the chord and consequent death of the fœtus is in proportion to the length of the labor, or rather to the descent of the fœtus in the cavity of the pelvis. Hence, to be wholly successful, cephalic version should be performed a short time before or soon after the commencement of the second stage of labor."

Can any one mode of treating shoulder presentations be relied on exclusively?

The answer must be in the negative. Cazeaux says, "At the present day it would be improper to embrace either opinion exclusively, for some cases are better suited to the cephalic version, while there are others, on the contrary, where the pelvic one is alone practicable; consequently, both operations should be retained in practice, leaving the judgment of the accoucheur to determine the cases where the one or the other ought to be preferred." In cases of inefficient uterine action, or in exhaustion from long continued labor, in hemorrhage, convulsions, or in any case in which there may be a demand for speedy delivery, turning by the feet is to be preferred. In all cases where difficulty arises from malposition alone, or in convulsions, hemorrhage, or in prolapsus of the funis, if the uterus should be engaged in vigorous expulsive efforts, turning by the head should be selected.

Prof. Wright's manner of performing cephalic version is as follows: The patient having been placed upon her back across the bed, and with her hips near its edge—supposing the presentation to be the right shoulder, with the head in the left iliac fossa, the right hand to have been introduced into the vagina, and the arm, if prolapsed, having been placed as near as may be in its original position across the breast—the fingers are

applied upon the top of a shoulder and the thumb in the opposite axilla, or on such part as will give us command of the chest, and enable us to apply a degree of lateral force. The left hand is also applied to the abdomen of the patient, over the breech of the fœtus. Lateral pressure is made upon the shoulders in such a way as to give to the body of the fœtus a curvilinear movement. At the same time, the left hand, applied as above, makes pressure so as to dislodge the breech, as it were, and move it towards the centre of the uterine cavity. The body is thus made to assume its original bent position, the points of contact with the uterus are loosened, and perhaps diminished, and the force of adhesion is in a good degree overcome. Without any direct action upon the head, it gradually approaches the superior strait, falls into the opening, and will, in all probability, adjust itself as a favorable vertex presentation. If not, the head may be acted upon as in deviated positions of the vertex, or it may be grasped, brought into the strait, and placed in correspondence with one of the oblique diameters.

It will be observed that the shoulders are not acted upon by raising them. Perhaps a slight elevation would facilitate the movement already described, or it might be better to depress them, and again, by lateral pressure, without either elevation or depression, our object might be accomplished. Pushing up the shoulders, then, does not constitute a prominent part of turning, if by pushing up is meant the mere raising the shoulders above the brim of the pelvis. The entire process of cephalic version is to be adopted in the absence of uterine contraction, or rather during the intervals of expulsive force, and as it is now a vertex presentation, we must be governed as to the manner and time of delivery by those general rules applicable to such cases.

Prof. Wright, in conclusion, remarks: "If our mode of performing cephalic version is sufficiently clear in the description already given, it will be readily distinguished from others. We claim for it great importance on the ground that it is easily executed, that the mother and fœtus receive no injury, that there is little or no danger of subsequent displacement after the vertex has been fully adjusted, that although it is most successful in recent cases, delivery may be accomplished after the membranes have been long ruptured, that it may be executed after ineffectual efforts to bring down the feet."

ARTICLE III.

HYPERTROPHY AND DILATATION OF THE HEART, WITH HYDRO-PERICARDIUM.

BY B. WOODWARD, M.D., GALESBURG, ILL.

Was called, June 30th, 1858, to see Mr. Wichstrom, a Swede, aged thirty-two. Has been out of health for more than a year, and since last December has not been able to work at his trade (shoemaker) much of the time; has been confined to his bed a week, but has had no treatment. Has suffered from palpitation of the heart for many years; was sick five years ago in Sweden; does not know what the doctors called his sickness, but had pain in his side and cough. Has had pain in his joints (rheumatism?) at various times, so that he could not work for weeks at a time. I found him with clean moist tongue; no heat of surface, but perspiring profusely; has no cough or expectoration, and no pain anywhere, but "cannot breathe;" pulse 160 per minute; respiration 55 per minute; character of pulse hard and jerking, showing labored action of the heart; respiration short, and the lungs do not inflate well, particularly the left; in breathing, the abdominal muscles are brought into active exercise; his face and lips have a peculiar livid and motled appearance; mind perfectly clear; percussion gives a clear resonance over the right upper part of thorax; on the left side, extending from the second rib to the lower part of the thorax, there was a perfectly dead sound like solid flesh; the heart's action was so violent that its impulse could be plainly seen at the distance of ten feet, and communicated to the muscles of the abdomen a distinct tremor; the sounds of the heart were quite audible two feet from the bed. The only position in which he could lie was on his back, with his head low. If he turned on his side there was a sense of suffocation, and if he sat up vomiting was induced. Either with or without the stethoscope it was impossible to make out the peculiar sounds of the heart, for it was nothing but a confused, tumultuous sound all over the præcordial region. I tried to find the bellows or blowing sound, but could not make it out. (I suspected valvular disease.) There was one peculiarity in

the sounds, and that was a flapping as though there were a loose valve flapping back and forth in the right ventricle. There was great enlargement of the præcordial region, giving the cartilages of the ribs a perceptible curve.

My diagnosis was hypertrophy of the heart and effusion of serum in the pericardium, and I thought also pleuritic adhesions on the left side.

As he and his friends wished to know what I thought of the case, I told them he could live but a short time. The only treatment I tried to institute was to control the heart's action, but in vain; nothing I could do seemed to have any effect. I could find no other evidence of disease than what I at first diagnosed. The rapidity of the heart's action and the difficulty of breathing increased until the morning of the 3d of July, when he died.

Our county society being in session on the 3d, I gave a history of the case and my diagnosis of it, and invited the members present to attend a post-mortem examination the next day.

July 4th, 8 *a.m.*—Made a post-mortem examination. Present, Drs. Taylor, Spaulding and McCady. The weather being extremely warm, and the body having been put in a coffin and fastened down, it was so very offensive that we carried the examination no further than the thorax. Turning back the flaps and sawing through the ribs three inches from their sternal attachments, we found the heart occupying the whole of the left side of the anterior regions, and three inches beyond the sternum on the right side. The pericardium contained thirty-two oz. of bloody serum. The heart, when divested of everything but its own substance and emptied of blood, weighed thirty-four oz. (two lbs. two oz.) The left lung was crowded to the back and compressed to less than one-half its normal size, completely hardened like firm liver, and closely adherent to the walls of the thorax—so much so that it had to be dissected off. The right lung was healthy but engorged.

Examination of the heart at my office.—Weight, 34 ounces; fatty degeneration to some extent; aorta enlarged; semi-lunar valves thickened and slightly ossified; left auricle enlarged and thickened; the valve normal; left ventricle enlarged and thick-

ened; the walls $1\frac{1}{8}$ inches thick; ascending venæ cava enlarged; right auricle enlarged; valve normal; right ventricle enlarged, with a fibrinous mass 2 lines thick and $1\frac{1}{2}$ inches long by $\frac{3}{4}$ inch broad, having slight attachments to the apex of the ventricle floating in its cavity. There were small fibrinous deposits adherent to the walls of the right auricle; these deposits looked and felt like plates of fibrin which had been washed out. The left ventricle would have contained a large goose egg. The notes of the dissection of the heart and its admeasurements were kindly taken by my friend, J. W. Spaulding, M.D.

There are several points of interest in the above case. Hope, Joy, and others, speak of hydro-pericardium without the co-existence of serous effusion into the cavity of the pleura or a general dropsical condition, as so rare an affection as to cast a doubt over those cases in which it has been said to exist. In the present case there can be no doubt on the subject, as the thorax was opened with great care, having this very point in view. *There was no serous effusion in the cavity of the chest*, and when the pericardium was opened it was done with a small puncture, and the serum carefully absorbed with a sponge and wrung out into a basin.

The position chosen by the patient is another point of interest. He could not sit up or lie on either side. In Dunglisson's *American Intelligencer* for 1842, p. 22, will be found an article from the pen of Dr. John Mackenzie, in which he states that "the recumbent position is often chosen by patients laboring under hydrops-pericardi, in order to relieve the diaphragm from the pressure which would otherwise be thrown upon it; while in hydro-thorax they *cannot* take this posture, for the water would be thrown back so as to press on the roots of the lungs and prevent the ingress of fresh air; that in hydro-pericardium this last condition cannot take place, the water being enclosed in a shut sack."

From the very imperfect history of the case which I was enabled to get, I was led to the belief that the disease of the heart was originally caused by rheumatism, and the extensive adhesions of the left lung had been caused either by pneumonia or pleurisy. The existence of the fibrinous flap (for I know not

what else to call it) in the right ventricle I cannot account for—I suppose it to be a species of polypus. The immense size and weight of the heart is a very curious circumstance. I have made a wet preparation of the heart and preserved it.

Perhaps it may be thought presumptuous in me to present the history of this case and the autopsy so soon after the case of Pus Blanchard's child. It is not from any mania for writing, but it seems to me that we have not autopsies enough. It is by post-mortem examinations that we either verify or disprove our diagnosis of cases. In either event we have pathology, and all correct practice must be based on pathology. By this we separate ourselves most effectually from quacks of all kinds—they never seek to have their cases submitted to the rigid test of morbid anatomy.

ARTICLE IV.

CASE OF INJURY OF THE BRAIN, WITH AN EXTENSIVE SCALP WOUND, AND FRACTURE OF THE SKULL.

BY W. T. SHERWOOD, M. D., OF EAST PAW PAW, ILLINOIS.

August 27th, 1858.—Called at 8 o'clock a.m. to see Hiram Hampton, aged 14, who, an hour before, had been thrown from one of the horses attached to a reaper. The horses had become frightened, and were running as rapidly as the heft of the machine and other encumbrances would permit. One of the guards or teeth of the machine struck his head at or near the junction of the lambdoidal and squamous sutures of the left side, producing an extensive fracture of the parietal bone, and penetrating the brain to the depth of two or three inches. The fracture extended along the lambdoidal suture two and a half inches, and along or near the squamous suture three and one-fourth inches, and from this point upward toward the vertex about four inches, breaking this portion of the parietal bone into three pieces, leaving an opening in the skull, through which the brain protruded, of three or four inches square. A fracture of the occipital bone was also found of two or more inches in length, and

extending downward and backward in a direct line with the sagittal suture. One of the pieces from the posterior inferior angle of the parietal bone presents a portion of the groove for the lateral sinus, which was ruptured and torn from its bed; the sulci, or grooves for the arterior meningia media, were also to be seen upon the bones that were removed, which, with the meninges, were torn from the brain. The pia mater, with several of the convolutions of the brain, were removed by the sickle guard, leaving the brain in a horribly mutilated condition. Many of the arteries of the scalp and brain were divided, and two or three inches of some of them entirely torn from the head. The posterior auricle, the temporal, the superior anterior branches of the occipital, and several of the large and smaller branches of the cerebral arteries were among the number injured. The amount of brain lost was estimated at half a gill. A piece of the scalp, measuring about two inches square, was nearly detached. The whole wound of the scalp measured over twelve inches in length. One incision extended from the vertex, near the junction of the sagittal, with the coronal suture obliquely downwards toward the ear, nearly five inches, and from this point posteriorly toward the occipital spine four or five inches more. Another extended from the posterior superior angle of the parietal bone, to a point just above the mastoid process of the temporal cutting, and turning up the scalp in two triangular pieces. One or two slight bruises were found upon the neck and shoulders and upon one of the hips. He was in an extreme state of prostration; pulse feeble and skin cold; he lies motionless and unconscious; if an effort is made to rouse him, he will answer questions, but reluctantly and with haste, and then relapse into a comatose insensible state again. When the wound was being dressed, he showed some signs of pain when the knife came in contact with the scalp. Locks of hair that had been severed from the head by the sickle were found driven one or two inches within the brain; these, with the pieces of fractured bone, were removed by the aid of the scalpel and forceps. The nearly detached portion of scalp, one or two of the convolutions of the brain that were badly lacerated, together with the portion of pia mater investing them, were also removed

by the knife and scissors. A portion of the sound and uninjured scalp was then—as in operation for hare-lip—dissected from the skull and made to cover the unprotected portion of brain. Some twenty sutures were taken in the wound, bringing its edges closely together. Brandy and water was freely administered during the operation to keep him from sinking. At the close of the operation he appeared to be in an almost perfect state of collapse; pulse extremely feeble and intermittent; features pale and ghastly; surface cold; respiration slow, and performed very feebly. He was ordered to be wrapped in flannel, and warm applications made to the feet. Stimulants were administered at short intervals, until he partially recovered from this state of prostration. He remained in this condition until eight hours from the time he received the injury; he then, after vomiting several times, sank into a state of collapse again. He became profoundly insensible; his pulse ceased; his eyes became fixed, and his jaws set; his extremities and face were icy cold; trembling of the pectoral muscles, and one or two slight convulsions, were noticed. A dose of carbonate of ammonia, with a little brandy and water, brought on an imperfect state of reaction. His pulse came up to 80, but were very weak and irregular, often sinking to 40 beats per minute, and then again, after the administration of ammonia, rise to 70 or 80. When his pulse sank he appeared as if in a quiet tranquil sleep; his extremities would again become cold; his respiration slow, sighing and feeble; but when his pulse came up again he would be restless and feverish; his skin hot and dry, and his lips parched. His pulse remained in this changeable condition until the third day, when they became more regular,—seldom falling below 80 or rising above 90—and were full and soft. His appetite began to improve slightly; he appeared much more rational, but slept the greater part of the time. When aroused he seemed perfectly conscious of what was taking place about him; would answer when spoken to, get up and take food or drink when offered him, and would listen to conversation for an hour or more at a time. A mild cathartic was given for the first time on the eve of the third day. He had had two evacuations from the bowels since the accident occurred, but from the fact that it was not supposed

possible that he could survive the injury more than thirty-six hours, and from the depletion that had already taken place from the loss of a great amount of blood, it was not thought advisable to deplete any farther, not even with cathartic. An enema was ordered to be given every two days if his bowels should become torpid. On the evening of the sixth day I found his pulse up to 96, but soft, very full and jerking; this was accompanied with an increased throbbing and heat of the brain. I ordered the cold cloths, which had been used from the time that reaction first came on, to be wet in very cold water, and changed as soon as they began to get warm, which was as often as every three minutes. A dose of magnesia sulph. was given, followed in three minutes with an enema. Veratrum vir. was left to be given every four hours in four drop doses. Called again on the evening of the next day: found him much more comfortable; pulse 76, and very soft. His appetite and strength seemed to increase from this time until the fourteenth day, his pulse remaining at 80. He was able to sit up in a chair when his bed was being made, and to converse with his parents for half an hour at a time. His memory was very much impaired, which he himself noticed and often spoke of. He remembered the occurrence of the accident, the horses running, and his being thrown off; he also knew and called people by name that called on him. A healthy scab formed over the wound, which, on the twelfth day, was thrown off, leaving the wound perfectly healed. Suppuration took place on the seventh day, and from that time until the fourteenth, the wound was doing as well as I could wish,—about eight inches of it being healed. I did not visit him on the thirteenth. Called on the fourteenth at 7 o'clock p.m. Found that inflammation of the brain had set in; his pulse 124; sleep disturbed; skin hot and dry; carotids pulsate violently; the tongue dry and the appetite gone; the stomach irritable and the bowels constipated; the pain in the head very severe; eyes intolerant to light; conjunctiva injected and red; impatience, irritability and constant agitation; arms continually raised towards the head, and is inclined to rest on the side injured. I left him veratrum again to be taken as before. Gave him an enema, which operated in about thirty minutes. Ordered the

cold cloths to be changed frequently, and to be applied to the whole head. Called on the fifteenth day at 9 a.m. Found his pulse 96; irritability and restlessness much less; heat and dryness of the skin was also much diminished. On the eve of the same day, from suppuration and sloughing of the divided arteries, he lost some blood, which was checked with cold applications. The wound, which had before discharged a healthy laudable pus, now discharged a thin gleety matter, which ran down the neck in streams, wetting the pillows and bedding. On the sixteenth day he was again taken with bleeding from the divided arteries, which was not checked until syncope was produced. He remained in a semi-comatose state until the next morning (seventeenth day), when he quietly and without a struggle glided into the arms of death.

ARTICLE V.

THE PREPARATION OF THE COMPOUND SYRUP OF PHOSPHATES OR CHEMICAL FOOD.

BY DR. PHIL. F. MAHLA, APOTHECARY, CHICAGO.

The favorable results which have been obtained in medical practice by the use of the so-called "chemical food," made it desirable to find out a method by which this elegant medicament could be made in a manner which would permit every apothecary to put it up himself, and which would, by its simplicity, reduce the cost of its preparation.

Different formulas have been proposed for preparing the soluble phosphates. The most common was that in which the basic phosphates were dissolved in pure glacial phosphoric acid, by which simply the soluble acid phosphates were formed, or that in which another acid was used, whereby, however, besides the soluble phosphates, also the soluble salt of the employed acid was formed in solution.

These procedures were not only expensive ones, because in most cases instead of the costly glacial phosphoric acid the nearly just as high priced citric acid has been used, but they did even not furnish the desired thing, because the physician wants

only the pure phosphates without free phosphoric acid in solution. But to prepare the syrup after the heretofore published formulas, it is not possible to get it without having free acid in it.

I think, therefore, that it would be of service to the medical profession, and especially to my brethren in business, if I would make public my process, which permits not only to get up a pure and elegant preparation, but which brings down the cost to a mere trifle; thus affording the apothecary an opportunity to charge but low prices for a valuable medicine.

The calcined bones consist essentially of about 90 per cent tribasic phosphate ($_3CaO.PO_5$) and about 10 per cent carbonate of lime. If they are brought in contact with sulphuric acid, a chemical process is produced, by which, besides the monobasic phosphate of lime ($\begin{matrix}CaO\cdot\\2HO\end{matrix}+PO_5$), only the but slightly soluble sulphate of lime is formed. If the obtained solution, after the insoluble residue has been separated, is evaporated to dryness, and the remaining salts are treated with a small quantity of water, nearly all the sulphate of lime remains as an insoluble white powder, and the solution contains the monobasic phosphate of lime.

I found now that this solution is capable of dissolving a large quantity of phosphate of iron, and that it can keep it in solution if it is not heated, provided that an excess of the monobasic phosphate of lime has been used. My method is founded on this discovery.

I will first give the formulas for preparing the monobasic phosphate of lime and the phosphate of iron, and then the one for making the syrup.

Monobasic Phosphate of Lime.—Take of powdered calcined bones ℥xvi., pour on them, in a porcelain evaporating dish of convenient size, one gallon of water, and add, stirring constantly, by and by, sulphuric acid (oil of vitriol) ℥x. After the effervescence has ceased, heat the mass on a charcoal fire, and keep it boiling during two or three hours, stirring constantly, and adding from time to time so much water as has been evaporated. Strain the refrigerated mass, and mix the residue twice with a quart of water and strain again. Evaporate to dryness all the

filtering and wash-waters, first on free fire, and afterwards on the waterbath, dissolve the remaining mass in an equal quantity of cold water, and after having separated the insoluble sulphate of lime by filtering, evaporate the clear liquid to a very thick pill mass consistence or better dryness. Put in dry glass-stopper bottles and protect it from the air.

PHOSPHATE OF IRON.—Dissolve of sulphate of iron 10 parts in 100 parts of water, add to it a solution of 13 parts of phosphate of soda in 130 parts of water (both solutions have to be cold), pour away the supernatant liquor as soon as the precipitate has settled, wash it with cold water, and collect it finally on a filter. Then dissolve one ounce of the monobasic phosphate of lime (if of pill mass consistence, one scruple more), one drachm of the phosphate of soda, and one drachm of the phosphate of potash, in four ounces of distilled water; add to this solution the still moist and freshly made phosphate of iron (out of about 10 drachms of the sulphate) as long as it will dissolve. As soon, however, as the blue color of the latter ceases to disappear, add another ounce of monobasic phosphate of lime, and filter the solution into a bottle. All these operations have to be made cold without heating the liquid.

Take of white sugar 32 ounces, water 18 ounces; boil and strain. When this syrup is cooled add to it the above solution.

This syrup contains in 1 drachm, 2 grains of the monobasic phosphate of lime, 1 grain of the phosphate of iron, and smaller proportions of the phosphates of soda and potash.

It happens very often that a small percentage of lime, which is contained in nearly all sugars, causes a turbidness in the ready-made clear syrup by throwing down a precipitate of the basic phosphate of lime. By letting it deposit, or better by filtering through a good filtering paper, it can be obtained perfectly clear.

A few druggists color this syrup with cochineal, but this being of no other use than to give this preparation the disagreeable taste of this substance, I think it preferable not to do it.

ARTICLE VI.

TYPHOID FEVER.

BY B. O. REYNOLDS, M. D.

Typhoid fever has prevailed in this vicinity for the last three months to a considerable extent, and quite a number of deaths have occurred from this cause. All the cases, however, that have come under my immediate observation have been of an ordinarily mild character. Indeed, it is my opinion, based upon close observation, that nearly all the cases of this disease occurring in the country, or in an otherwise healthy locality, would continue mild were it not for the common practice of too many physicians, especially those of ancient origin, to dose freely with calomel and other active cathartics, thereby reducing the plasticity of the blood, as well as directly irritating the intestinal glands, which, I believe, are universally spongy or inflamed in this form of fever.

Within the last three years I have treated thirty well-marked cases of this disease, and all, with two exceptions, without the use of mercurials in any form, and also without cathartics, using in their stead, when necessary, simple laxatives or enemas.

The exceptional cases referred to presented decided biliary derangements, and a few doses of hydr. cum creta seemed to have a beneficial effect.

Unless contra-indicated by local complications, I give tonics throughout the entire course, and early resort to the turpentine emulsion, aided by a judicious administration of well-salted animal broths and other supporting diet. If I could use but one remedy in the treatment of this disease, I should greatly prefer the turpentine to any other.

I have for several years closely watched the result of the calomel treatment as practised by our old fogyish physicians (who use mercurials invariably in all fevers), and must say that the mortality has been considerable, and many who have finally recovered narrowly escaped death.

All the cases that I have been called to treat from the commencement of the attack, and before any medicine had been

given, have not only recovered, but the disease, after the first six or eight days, generally assumed a mild character, the patients getting about in from one to four weeks. Either the cases that have come immediately under my observation and treatment have all been miraculously mild, or else the treatment had something to do in mitigating the disease.

Again, I have frequently been called to see patients that had been copiously purged, either professionally or, by what is a common practice with many persons when attacked with disease, by taking large portions of patent pills, which generally are composed largely of aloes or other drastic cathartics, who very soon presented the disease in its worst form, and some have died about the third week, while others barely escaped, and only recovered after an illness of from five to eight weeks.

I do not wish to be understood to say that this or any other fever may not be attended with alarming symptoms, and even prove fatal under any treatment. Undoubtedly such cases do occasionally occur; but what I would impress upon the minds of your readers is, that in our treatment we should carefully avoid anything that would tend to impair the already much depressed vital forces of the system, which we have every reason to believe is the true condition in this disease.

I have been induced to say this much from the fact that I have so often been surprised to see some of my senior brethren not only saturating their typhoid patients with mercurials, but also administering freely hydragogue cathartics, even in advanced stages, when there was evidence of great general prostration.

Our county medical society holds regular meetings, yet it is a painful fact that the interest taken by the profession throughout the north-west in these societies is not what their importance demands. At our last meeting the following resolution was unanimously adopted, viz: That we believe a very large proportion of human misery, including poverty, disease and crime, is induced by the use of intoxicating drinks; and the most perfect health is compatible with total abstinence from all such drinks as beverages, whether in the form of distilled or fermented spirits; and we believe that persons accustomed to the use of such drinks may, with perfect safety, discontinue them entirely;

that total and universal abstinence from alcoholic beverages of all kinds would greatly contribute to the health, the prosperity, the morality, the longevity, and the happiness of the human race.

I believe if this or a similar resolution was promulgated by every physician, endorsed and made public by every local medical society, that much in this way might be done to eradicate that monster disease, *intemperance.*

Elk Horn, Wis., May, 1858.

ARTICLE VII.

POISONING BY BELLADONNA.

BY B. F. SCHNECK, M. D., OF LEBANON, PENN.

I have been in the habit for several years past of treating many cases of hooping cough with the following prescription, and have been invariably well pleased with the result:

℞ Extr. belladonnæ, grs. xij.
Syr. ipecac., ℥j.

Tere et misce sig., 10 to 30 drops three or four times a day.

A little son of H. R., aged 4 years, convalescent from the disease under this treatment, had just been ordered half an ounce more of the mixture, as being sufficient to remove what little cough there yet remained. Of this vial he had taken but one dose, when, his mother being engaged in another room for fully half an hour, the child drank the whole half ounce, save what little of the syrup, owing to its thickness, adhered to the inside of the glass. When she returned she remarked his odd behavior, for which she could not at first account. After the lapse of nearly an hour, however, finding the empty vial, and now remembering my caution as to the danger of the remedy in over-doses, she sent me a very emphatic summons, which, it is needless to say, I attended to with more than obstetric haste.

I found the child completely belladonnized, and the worst not yet come. There was a disposition to drink constantly, indicating great dryness of the mouth and throat; complete loss of sight, with intense injection of the eyes, and great flushing of

the face. He appeared to hear morbid sounds, as indicated by his suddenly starting up into a listening attitude and looking round. The next moment he fell into a short sleep, from which he soon started up affrighted. The pulse was now very full, feverish and frequent; there was an eruption of a scarlet color over the entire surface, and there occurred occasional efforts at retching and vomiting. Now also visual illusions began to appear, manifested by the child's fancying that he saw objects in his vicinity, and reaching towards them accordingly. Delirium now also came on, associated apparently with pleasant or amusing ideas, for the child would smile and then suddenly burst out into gleesome laughter, accompanied by odd gestures such as children often make in their frolics in health. On standing him out on the floor he could not walk, but staggered, with the body bent forward and stooping, and the arms thrown out gropingly as a blind man would feel his way, and unless held he soon fell down. He now began to be comatose; the surface looked purplish, and the extremities became cool. The treatment, unfortunately delayed for more than an hour for the reason above given, consisted in cold effusions uninterruptedly to the head, and emetics of ipecacuanha and sulph. zinc, which, however, were administered with the greatest difficulty. Ten grains of each were given every twenty minutes, but so insensible was the stomach that upwards of two hours elapsed before free emesis could be induced, and then only by tickling the fauces with a feather. When, at last, vomiting occurred, the child was unconscious, the poison having had a fair time to be absorbed, and the case looked hopeless. A stimulating injection, however, which had been given at the beginning, now fortunately began to operate, and very soon, as if by magic, the symptoms improved. A large dose of calomel with castor oil were now given, and in six hours afterwards the child was out of danger.

The extract was Tilden's, and the quantity swallowed was six grains. It is singular that the half ounce of syr. ipecac. should not of itself have induced vomiting. Probably the nervous sensibility of the stomach was at once overpowered by the quantity of the narcotic taken. The recovery of a child, especially after such a dose, is remarkable; inasmuch as two grains have been known to produce alarming symptoms in an adult.

ARTICLE VIII.

TWO CASES OF INTERNAL INJURY FROM A FALL; THEIR OPPOSITE AND UNEXPECTED TERMINATIONS.

BY B. F. SCHNECK, M. D., LEBANON, PENN.

CASE 1.—April 7th, 1858, was called to the wife of Wm. Hoffman, who was said to have fallen in the following singular way: engaged in lifting a heavy iron kettle from the fire while washing, she slipped, fell, and struck with her left side the edge of a cedar bucket. The fall was thus only from the perpendicular to the horizontal. She was taken up insensible. I found her recovered, it is true, but alarmingly ill. There was no pulse at the wrist; no throbbing of the carotids; a mere flutter audible at the heart; the entire body as cold and white as that of a corpse; and the lips, even, perfectly blanched. Indeed, the shock to the system was so great that the woman threatened to die every moment. This prostration may have been owing to the solar plexus of nerves having been greatly affected by the blow. She complained also of a stitch in the left side, which was much benefited by a tight bandage. Brandy was freely used; sinapisms, hot bricks, etc., were applied to the extremities; and yet for two days and a night the woman lay in the same collapsed state, though perfectly conscious and rational. On the third day she vomited, and complained of severe pain in the abdomen, which began to swell enormously, and a real peritonitis supervened. On the fifth day the tongue became dry, a profuse watery diarrhœa set in, and the symptoms of enteritis were clearly declared.

During all this time the treatment was fomentations, opium and calomel, brandy and nourishment; the stimulants, though contra-indicated by the inflammatory action, being nevertheless required by the extreme collapse which was ever present.

April 15th.—Pulse very small; action of the heart feeble; skin cool, and surface pale; considerable dysuria and tenesmus; abdomen softer, reduced in size, and less painful. Gave pl. acet. 2 grs., opium 1 gr., cret. preparat. 3 grs., after every

evacuation; and quinia sul. four times a day, with brandy and beef-tea freely.

April 20th, 25th.—Slowly convalescing; able to sit up.

Case 2.—On the evening of April 10th, 1858, John Kindig, aged about 40 years, fell from a tree which he was pruning, a height of fifteen feet. I saw him in probably half an hour afterwards, and found him as follows: Fracture of the left radius close to the hand; a cut in the scalp, about two inches long, a little above the left ear, and running parallel with the temporal ridge. His general aspect was very favorable; his warmth and color unaffected; no pallor, as in the first case, indicating any shock to the system; the pulse slow and regular, and no difficulty about the heart perceptible to the ear. A deep inspiration caused some pain across the chest, but more a feeling of constriction. There was no cough. He complained of some stiffness of his neck, and moved his legs freely. Save the injuries above stated, the entire organism appeared, after the most careful scrutiny, to have almost miraculously escaped; and the investigation was certainly thorough, for the recollection of the woman's fall a few days before was too fresh in my mind to have permitted me to be at all careless. There was no concussion nor compression of the brain here; no depression of the bone, as his rational conversation indicated. Until I had dressed the fracture and the flesh wound there was consumed at least an hour, or more; and during all this time I could distinguish no other lesion. I was informed, however, that at 4 o'clock the next morning he had some spasms or nervous twitchings, as they were described to me, and immediately died. I was also told that about midnight he had a chill, after which a slight reaction came on; but as he felt well, neither he nor his attendants had any presentiment of death, until it quietly and quickly came upon him.

One thing is remarkable: he felt no pain while I was adjusting the fracture, although the displacement was such as must have caused not a little suffering during the necessary manipulations.

What was here the cause of death? No post-mortem examination having been allowed, we must only conjecture. It was not concussion or compression of the brain; not dislocation

of the vertebræ; but it may have been rupture of the liver, of the spleen, of a great bloodvessel, or of the stomach.

On the following morning, when I was shocked to find him dead, I felt his abdomen, and found it very much tumefied, and presenting a hard and *doughy* sensation to the touch.

PROCEEDINGS OF MEDICAL SOCIETIES.

ANNUAL MEETING OF THE EARLVILLE UNION MEDICAL SOCIETY.

The second annual meeting of this association was held at Earlville, July 13th, 1858, commencing at 2 o'clock p. m.

The meeting was called to order by the Vice-President, D. C. Gould, of Northville.

The minutes of the previous meeting were approved as recorded, and read by the Secretary.

An election of officers for the ensuing year was held, which resulted as follows:

President, . . .	D. C. Gould, M.D.,	of Northville.
Vice do., . . .	J. W. Edwards, "	" Mendota.
Secretary, . . .	D. M. Vosburgh, "	" Earlville.
Treasurer, . . .	S. Wiley, "	" "
Censors, ...	P. E. Cook, "	" Mendota.
	D. Hinckley, "	" Leland.
	W. P. Sherwood, "	" East Paw Paw.

Interesting discussions were held amongst all the members present upon the following subjects: Bite of the Rattlesnake, Cholera, and Cholera Morbus.

The Secretary was instructed to furnish a copy of the proceedings to the *Chicago Medical Journal* for publication.

Then adjourned until the semi-annual meeting, which will be held on the 10th November next.

D. C. GOULD, *President.*

D. M. VOSBURGH, *Secretary.*

[Continued from page 660.]

"I do not wish to make a hobby, or laud any remedy more than it requires, but must say that I am convinced that veratrum is one of our great therapeutical remedies; and as such, demands our attention and administration in most inflammatory diseases.

"In reply to question No. 2, I would say, that scarlatina has prevailed nearly all the year, and is still prevailing at this time within six or eight miles of our place. During the summer and fall, and early part of winter, nothing unusual characterized its type; in fact, if I should regard anything unusual about the disease, I should say it was unusually mild.

"This mildness of type continued until January. No deaths had occurred, although I had cases all the time. The first cases in our vicinity that proved malignant and fatal, occurred in Toulon, a village six miles distant. The patients (two children), under the care of a homœopath, were sick only a few days, and, as I learned, died with symptoms resembling those in arachnitis.

"On the 17th of same month I was called to see a boy, aged eleven years. The rash was fully out, but looked purple; he seemed a little incoherent; pulse quick and weak. I ordered lukewarm spongings to the surface, cold applications to the head, warm pediluvia, to be succeeded by sinapisms to the feet, a mild dose of oleum ricini, and when it operated to be followed by spts. nit. dulc. ℥ij., comp. syr. scillæ ℥j., mix, and give ʒj. every two hours. On the next morning I saw him again; symptoms but little changed. Oil had operated. Treatment not changed. P. M., saw him again; symptoms materially changed for the worse; constant muttering delirium; sunken appearance of the countenance; cannot recognize friends; floccitatio; evacuations passing in the bed without his knowledge. Ordered quinine, with carb. ammonia, every two hours; and to subdue the pulse, ordered tr. veratrum, in diminished doses, every three hours. Spts. nit. and tr. scillæ comp. to be suspended.

"Next morning much worse; treatment continued, but he died the succeeding night.

"While at this house, my attention was called to an infant, aged one year, who had only been sick an hour or two. I made

a prescription, but ere fourteen hours had passed they both lay corpses in the same house.

"This child sunk as if by some sedative poison. In two other houses in the same neighborhood seven other cases occurred, and out of that number only four recovered. Some died with disease of the glands of the throat and ulceration of the tonsils, some with an erysipelatous affection of the eyes and face, but most cases died as if from meningitis."

The Doctor continues by saying that on the 6th February scarlatina entered his family. Five children of his own, and a girl of thirteen residing in the family, were sick, and one died. Those who recovered were sick a long time, and the convalescence protracted.

In the case of his son, aged ten, the thumb nails, some of the finger nails, and the entire surface of the skin sloughed off.

After acknowledging his obligations to Drs. Secord and Clark of Galva, and Drs. Fitch and Cleveland of Kewanee, for medical aid during the sickness of his children, the Doctor adds:

"I am under the painful necessity of acknowledging that I have but little confidence in medication in this malignant disease. I have tried the mild and expectant plan, I have tried the stimulant plan, the cold and warm and the sedative plans, tr. veratrum, with the different liniments and poultices to the throat, with the multiplicities of gargles to the tonsils, without being able to decide upon the superior virtues of any one course."

In reply to question No. 3, the Doctor writes:

"Typhoid fever, during the year 1857, has not prevailed as much as usual. What cases I have seen were unusually tedious. No cases have proved fatal under my care. I see no well-marked distinctions between cases occurring in the timber or on the prairie. This is a rich prairie region, the timber being on the low ground and the prairie high and rolling.

"Milk-sickness is not known in this vicinity; and as for answering to its origin I shall not attempt it, as it has baffled our best pathologists and chemists up to the present time.

"Cholera infantum prevails every summer in this region. I believe it is produced by teething and the excessive warm weather, unwholesome atmosphere, sleeping in crowded and illy ventilated

bedrooms, and not by miasmatic causes; and consequently think that anti-periodic remedies are of little use in any stage of the disease. For a topographical description of this section of Illinois, see a letter from the undersigned, published in the *Transactions* for the year 1856."

The report of your committee is hereby respectfully presented, and with the hope that the several subjects treated will receive further attention from future committees.

F. K. BAILEY, *Chairman.*

PURPURA HEMORRHAGICA; WITH A REPORT OF CASES.

(Read at the Annual Meeting of the Illinois State Medical Society, June, 1858.)

BY G. W. PHILLIPS, M. D., OF DIXON, ILL.

The above is the title to an interesting paper covering thirty-five pages of foolscap paper; but the author must pardon us for giving an abstract instead of the paper in full, on account of the small amount of money in the treasury of the society. The whole paper is occupied with the detail of four cases and their treatment.

The first was a female, aged fifty years, who had suffered more or less from periodical fever for two years preceding. She was anemic, and the purpura was accompanied by hemorrhage from the bladder, and more or less bloody discharges from the bowels, with a plain aggravation of symptoms every alternate day. She was treated chiefly with quinine and oil of turpentine, and recovered in about three weeks.

The second case was a man, aged twenty years, of a scrofulous diathesis, and subject to attacks of pulmonary irritation. The symptoms, at first, were those of a mild remittent fever; but the patient became greatly prostrated; subject to frequent epistaxis; tongue dry; pulse 160 per minute; and towards the end of the case, petechia on the surface and low delirium. The treatment consisted in the use of quinine, brandy, ammonia and

iron; but the patient died thirty-three days from the commencement of the attack. No post-mortem was allowed.

The third case was a female, of nervous temperament, aged between twenty and thirty years, whose health had been failing for two preceding years. During the last six or eight months she had nursed an infant, and suffered some from stomatitis materna, and slight attacks of periodical fever. The child was weaned, and the patient resorted for a time to a less malarious district in Wisconsin. While there her child died and she suffered from bronchitis. She returned emaciated and feeble, and soon again had symptoms of ague. For two weeks more she rapidly became extremely anemic, with vertigo, faintness on rising up; slight hemorrhages from the nose and gums; pulse 130 per minute and soft; and occasionally vomiting. There was enlargement of the spleen, and some signs of disease in the lungs. During the third week diarrhœa occurred, with some petechia over the abdomen. During the fourth week she began to improve, and remained better for several weeks. But then all the primary symptoms were renewed, with the addition of still greater emaciation, œdema of the cellular tissue, and dulness on percussion over the cardiac region of the stomach. After lingering eight or ten weeks longer, during which she suffered much from neuralgic pains and extreme debility, with additional dropsical effusions into the cavities of the body, she died.

Dr. Phillips thinks the case was complicated with cancerous disease of the stomach, but no post-mortem examination was permitted.

The fourth case was a lady, aged thirty-four years. Her father and some of her brothers had died of paralysis. The family on her mother's side were consumptive. Her health had been declining for more than a year before coming under Dr. Phillips' care. He found her suffering from all the symptoms usually resulting from occasional paroxysms of fever; greatly impoverished blood; enlargement of the spleen; and morbid irritability of the respiratory organs. For several months the patient continued to suffer from the same pathological conditions, with gradually increasing exhaustion. At length, epistaxis occurred, with petechial and purpuric spots over the cutaneous

surface, varying from the size of a pin's head to that of a silver dollar. Owing to the frequently repeated symptoms of periodical fever, and the hereditary tendency to paralysis, she was treated during several weeks with strychnine and the solution of arsenite of potassa. These remedies were gradually increased until the former was given in doses of half a grain three times a day, and the latter in doses of fifteen drops, without spasmodic action from the one or œdema from the other. She took also more or less quinine and other tonics. After several months of suffering she improved so much as to be able to return to New Hampshire, her native state.

It will be observed that all the cases reported occurred in a miasmatic district, and that repeated attacks of periodical fever had preceded any hemorrhagic or purpuric symptoms.

The chief items of treatment that seemed to benefit the patients were such as interrupt periodicity and improve the quality of the blood, viz: the use of quinine, strychnine, nitro-muriatic acid, and other tonics.

VALEDICTORY ADDRESS OF THE PRESIDENT OF THE ILLINOIS STATE MEDICAL SOCIETY.

(Delivered at the Annual Meeting in Rockford, June, 1858.)

BY C. GOODBRAKE, M.D., OF CLINTON.

Gentlemen of the Illinois State Medical Society,—In discharging the last duty pertaining to the station which, by your free-will suffrage, I have had the honor of occupying during the past year, permit me to present for your consideration a few thoughts on some of the causes which, in my opinion, retard medical improvement and the usefulness of our profession, in this our glorious Prairie State.

I know it will be very difficult for me to advance anything new under this head, the ground having been gone over time and again by those more capable and who have more "elegant leisure" to devote to matters of the kind. But as there is

scarcely any topic connected with our profession but what has been written and spoken upon by so many, and on multiplied occasions, I hope it will not be deemed arrogant in me to offer a few ideas as they may present themselves to my mind in relation to this subject.

From what observation and *experience* has taught me, I believe that the first and one of the greatest obstacles in the way of medical improvement is the want of a proper or necessary preliminary education on the part of a great many who engage in the study of medicine. Many young men, endowed by nature with excellent minds, and who, if they had undergone a pretty thorough course of mental training, might engage in the study of medicine with great pleasure, and the promise of much success and usefulness, commence it without any educational fitness whatever,—some of them hardly able to write intelligibly or read their own language understandingly. Now it must be quite obvious to every one, who has in any degree profited either by observation or experience, or both, that he who enters upon the study of the science of medicine under these disadvantageous circumstances has indeed a hard task to perform, if his aim is to make himself a respectable and well educated physician.

We will take it for granted that he intends to make himself familiar with the different branches of the study before him, and as a matter of course he will have a double labor to perform from the very outset. In the first place, he must study his text; and secondly, he is compelled, by dint of severe mental labor, to learn to understand the language his author uses. We can all readily perceive that if there were nothing else lost in cases of this kind, it must necessarily involve a great waste of time. It will take the student twice as long as it would if he had been properly educated beforehand to prepare for his college course; the same difficulty will follow him through the whole of his attendance on medical lectures; and he can only hope, by a prolonged course of untiring and undeviating application, to reach the goal for which he has set out.

We must admit that there are some who, by a passionate desire for scientific knowledge and an iron will to overcome all obstacles, will perform almost impossibilities, and finally become

pre-eminent in the profession. But while this is true of a few, it is also true, that hundreds of those who commence the study of medicine without a reasonable preparatory education, soon become discouraged by the great disproportion of their mental acquirements and the magnitude of the task before them; and some of them—those who take the most sensible view of the subject—turn their attention to some other calling more proportionate with their educational qualifications; but a majority of them, because they are unable to comprehend either the beauties or usefulness of the science, arrive at the conclusion that all they want is a smattering of the *art of medicine*, and consequently they aspire no higher than to obtain their diploma, and ever after follow their profession as a trade, merely to make money. Of such are those of whom it has been said, that instead of conversing on some scientific subject — the character of the diseases most prevalent, etc., etc.—when they meet with a neighboring physician, they always inquire of him how many dollars he has booked per month. All such men, instead of doing anything that might add to our common stock of medical knowledge, are mere clogs under the wheels of the car of medical progress.

Another great hinderance to medical progress in our western country, according to my way of thinking, is the habit, existing among us to a considerable extent, of sending our students "east to attend lectures." The time may have been when this practice of sending our students "over the mountains" to receive medical instruction was necessary, but that time has gone by; for we can boast of a sufficient number of medical schools, supplied with every material necessary to impart instruction, hospitals included. And our schools are conducted by gentlemen who are as capable, and who are in possession of as high medical attainments as can be found in any portion of our whole country. I am aware that when anything is said on this point, the cry is at once raised against "sectional medicine." They may call it what they please, but I am confident that those who wish to practice medicine on the prairies of the west should receive instruction from men who are acquainted with the peculiar character of the diseases which the student will be called upon

to treat when he assumes the duties of a medical practitioner. "That diseases present peculiar features in different localities no one will pretend to deny; and that our western diseases require a different treatment—to a great extent—from those of eastern and mountainous ones, will be corroborated by every candid physician who has received his medical education in the east, and has settled himself to practice his profession in the west. He will tell us that it required considerable time and study before he could familiarize himself with the prevalent diseases of our western country and treat them successfully." Leaving out of the question the risk of the lives of patients and the reputation of the young practitioner, this again is attended with a loss of time; and as time is money in the business world, so time is knowledge in the scientific world.

The next thing to which I will call your attention is a want of the exercise of proper discrimination on the part of too many of our practitioners. If there is any one qualification necessary for the physician to possess, in order to practice with benefit to his patients and honor to himself and the profession, that of thorough discrimination stands pre-eminent. And the want of discriminative powers, or the neglect to exercise them, will continually subject him to upbraidings of conscience, mishaps in practice, and the pity, if not the contempt, of his professional brethren, no matter what his other acquirements may be.

It will be unnecessary for me to mention all those innumerable and awkward mistakes which occur almost daily in the practice of medicine, surgery and obstetrics, from the neglect to discriminate carefully; and I will therefore only endeavor to point out wherein and in what manner this neglect is almost certain to endanger the lives of patients, disgrace individual practitioners, and bring reproach upon the profession.

The great difference of opinion entertained by physicians in regard to many of our most common diseases, has its origin in the want of a close inquiry into the pathology of every disease the physician is called upon to treat, and a careful selection and judicious administration or application of remedies. How often has it been the case that some physician has reported his experience in typhoid fever; given his treatment, and informed

us that it proved highly successful,—it acted like a charm!—and in the very next case of this disease some one of his readers was called to see, he pursued the same treatment, without due regard to age, temperament, idiosyncrasy, or peculiar symptoms, which may have accompanied his case, and which were, perhaps, entirely absent in the case reported, and the treatment has proved an entire failure. Perhaps a succession of cases were treated in a similar manner and with a like result, and he then informed us, through the medium of some medical journal, that the reporter of the treatment was in error, that his plan of treating typhoid fever had been subjected to a fair trial in a number of cases, and found most conclusively inadequate to the purpose. The same is true of some who will tell us that they have treated their cases according to some favorite author,—probably according to Wood's Practice—and that the "treatment laid down don't amount to anything." But they forget to inform us that George B. Wood was not present *in propria persona* to make a correct diagnosis in their particular case, and to exercise discrimination in selecting suitable remedies, as they were indicated from time to time throughout the continuance of the diseases. They forget that an author can do no more than to give us the most prominent characteristics of the disease, and point out some general plan of treatment; and that our own discriminative judgment must, in each individual case, teach us what remedies are indicated—when to give a certain one, and when to discontinue it and substitute another.

How many there are who, when they think they have a case of typhoid fever, at once commence a certain routine of remedies as laid down in their text book or some monograph on this disease, and continue to do so until the patient happens to get well or is removed by death from under their jurisdiction. And there are others who set up an opinion of their own in regard to this disease, to the exclusion of all other opinions, no matter from what source; and who have their own peculiar remedy to "cure-all-cases," and administer it indiscriminately in every case they are called to treat. One will tell us that turpentine alone is sufficient to cure any case of typhoid fever; another informs us that brandy and nitrate of silver is all that is required

to cure the most stubborn case; and a third intimates that typhoid fever is not so much of a disease after all! and tells us very complacently that all he wants is to get the patient *slightly* salivated at the commencement of the disease, and he is sure to cure every case, and so on almost *ad infinitum*. Each one of these self-willed practitioners have their own peculiar hobby, and give their own specific, to the exclusion of all other remedies.

It must be apparent to every intelligent mind, that these hobbyists are as deep in the mud, as those who follow some routine of treatment laid down by others, without taking the trouble of thinking for themselves, are in the mire. Both of these classes of men must prove unsuccessful practitioners. In the first place, they neglect to attend to that part of their duty which is paramount to all others, namely: to investigate carefully and thoroughly the disease before them, examine every symptom minutely, and spare no pains to arrive at a just conclusion as regards the constitution and peculiarities of their patient; and in the second place, they fail to use a cautious and warrantable discrimination in the selection of their remedies, but either follow up some prescribed rule of medication without considering its applicability to the case under treatment, or mount their favorite hobby, and ride it until too frequently their patient dies, and they ride themselves out of practice and the profession into disrepute.

What has been said of indiscriminate practice in typhoid fever is equally applicable to the treatment of other diseases. I have seen physicians who would give veratrum viride in every case of pneumonia they were called to treat. No matter in what stage of the disease, or what peculiar symptoms the patient was laboring under when first called, if they diagnosed a pneumonic affection, veratrum must be given; no matter if the pulse was hard or soft, full, or threadlike; and whether the skin was hot and dry, or cool and moist; so the pulse was moderately quick, and the patient had a cough, and complained of pain in the breast or side, he must needs take *the* remedy, because some favorite author or professor had recommended it in particular stages of pneumonia and pleurisy. That such practice is unscientific and calculated to do great mischief, all

will readily admit; but some of you may doubt whether any one, calling himself a regular physician, could be found who would treat a patient upon such hap-hazard principles, or rather no principles at all. But I can assure you, gentlemen, that my observation leads me to believe that such practice is far too common among us, and that its effects are more prejudicial to the interests of the profession than all the irregular quackery in christendom. "Better by far would it be for the human family that the *armamenta medica* consisted of sugar of milk, or like inert substances, than potent drugs, if the practitioner is unable to distinguish and identify disease," and fails to exercise sound discretion in the selection of remedies.

Another thing to which I would call your attention is the fact that there is too little importance attached, as a general thing, to the jurisprudence of our profession by teachers, students and practitioners; and it is true that some of our most able practitioners neglect it entirely. This is not as it should be. Medical jurisprudence, when rightly considered, holds a very important rank among the sciences; and of all the duties devolving upon the physician, none is more solemn and responsible than his position as a medical witness. And there is nothing that can occur in his practice in either of the other branches of our profession, which could have a tendency to raise him higher in the estimation of the community than an enlightened opinion given in an intricate case before a court and jury; and nothing could tear a good reputation down more suddenly than a great blunder committed under like circumstances. A learned writer has said that "the talents and acquirements of the clergyman and the lawyer are brought to a more searching popular test than those of the physician. The clergyman's public ministrations and the lawyer's efforts at the bar are laid open to the appreciation of all. Their audiences are, to a large extent, competent judges of their efforts, and if they manifest ignorance, stupidity or superficiality, they forthwith fall in public estimation to the low level they deserve." And he then goes on to tell us that the knowledge and abilities of the physician, in the practice of his profession, are not tested in the same direct and open manner. This is true, so far as it regards the ordinary

and every day practice of the physician, but there is another quite different position which he is frequently called upon to occupy. When he is called before the judicial tribunals in the capacity of an expert or skilled witness, his knowledge and abilities are tested in the *same direct and open manner* as that of the clergyman's or lawyer's. In this important position,—and perhaps he may be subpœnaed in an unguarded hour to appear before a court and jury to explain the principles and doctrines of our profession, as touching the peculiar case then under investigation—"with the prying curiosity of the bar, the stern scrutiny of the bench, and with the anxious attention of the jury and the bystanders fixed upon him," he may, if he is thoroughly posted in forensic medicine, stand up as an ornament of the profession, "as the high priest of nature, with whom, in her inscrutable laboratory, he is ever familiar." Or he may, through ignorance or indiscretion, ruin his own professional reputation, and bring reproach upon the profession at large. And how often is it the case that physicians, who are good and respectable practitioners, but having neglected this branch of their profession, when they are called to the witness stand, call down upon themselves the pity of the judge, the ridicule of the lawyers, and the jeers of the audience. How necessary then that all, from those who have charge of our medical institutions down to the most obscure country practitioner, should inculcate the necessity of *more attention* to the principles and facts that constitute medical jurisprudence.

Another thing which retards medical improvement, and prevents the profession from becoming as generally useful as it otherwise might be, is a kind of apathy or want of interest exhibited by too many of our medical brethren throughout the state, in our state and county societies. Medical societies are no longer an experiment; the best medical minds in the country all agree that they are instrumental in creating more union in the ranks of the medical fraternity, a greater interest on all subjects connected with medicine; and also, that all members who feel a lively interest in these societies, and are punctual in attending the meetings thereof, are themselves individually benefited. But notwithstanding all this, there are very many

who, from some reason or other, stand aloof, and fail to connect themselves with us to aid us with their council and contribute something to our common fund of medical information, and necessarily fail to receive the reciprocal benefit resulting from such a connection. Some indeed will tell us, and even publish it in the journals, that "all the medical talent in the state is not concentrated in the state medical society." Now this is not claimed; but if what our best medical writers say on this subject be true, it is the duty of every physician in the state to connect himself with the state society; and consequently, all these gentlemen have got to do is to fulfil their duty in this respect, and our society will then contain all the medical talent in the state. "'Tis a consummation devoutly to be wished." If we could visit every county in our state, we would find that in those counties where there is no regular organization of the profession, the practice of medicine is followed too much as a mere business, in which the almighty dollar is the leading principle. And here also we would find those old-fashioned jealousies and tricks of trade which make it so very difficult for the people to find the true line of demarkation between regular medicine and quackery. And, on the other hand, in those counties where they have organized medical societies, and have adopted the national code of ethics, we would, as a general thing, find friendly relations, high aspirations, and a spirit of scientific investigation existing among the members of the profession; and they would greet us with the welcome news that empiricism had taken unto itself wings and fled to parts unknown. For the people will, more readily than is generally admitted, distinguish between the truly scientific and gentlemanly physician and the mere pretender.

If what has been said in relation to these several subjects, as impediments to medical improvement, which I have attempted in a brief manner to bring to your notice, be true, it will follow, as a matter of course, that it is our duty to pay due attention to the preparatory education of those who wish to engage in the study of medicine. Admit no young man into our office as a student who is not in posession of a good English education, and sufficient knowledge of the Greek and Latin to enable him to understand the technical names and phrases necessarily used

by medical writers and teachers. This will more immediately benefit the student himself, because it will save him a great deal of time and trouble in after years. But it will also contribute to medical progress, for in nine cases out of ten he will make a better physician and take more delight in investigating scientific subjects.

We should encourage our students as far as practicable to attend lectures in or near as possible to the section of country where they expect to locate. It will save them much vexation and trouble during the first years of their practice. Everything else being equal, let us "encourage home manufacture."

We must discountenance hobbyism and the treatment of diseases according to their names, but encourage the study of signs and symptoms of diseases instead of nosological tables; and inculcate by precept and example careful discrimination in the use of remedies.

We should, as a profession, pay more attention to medical jurisprudence. It should be more extensively taught in our medical schools; its importance more strongly impressed upon the minds of students; and we should all give it at least as much attention through life as we do any of the other branches, as it is most certainly not the least in importance.

And last, though not least, let us encourage and support by every means in our power our state and county medical societies. There should be a more universal feeling among our physicians in favor of these organizations. For if rightly supported and their affairs properly managed, they will do more for the furtherance of medical improvement in our State than any other measure or measures that could be instituted for that purpose.

In conclusion, gentlemen, allow me to tender my heartfelt thanks for the courtesy you have so unanimously extended towards me as presiding officer of this society. And I can assure you that your enlightened views on subjects brought before this society for its action, and your good will and kind forbearance, has made the task on my part a very easy and pleasant one.

BOOK AND PAMPHLET NOTICES.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Instituted 1847. Vol. II. 1858.

This volume of the Transactions is rather larger than the last. It contains over one thousand pages, and is bound in the same permanent manner as its predecessors of the last three or four years.

After the minutes come the Report of the Committee on Publication and Treasurer, which are followed by the different scientific and literary papers of the President and contributors of the Association.

The first of these is the address of Prof. P. F. Eve, of Nashville, the retiring President. An excellent address, alike honorable to the profession and its author. Next follow: Report on the Medical Topography and the Epidemic Diseases of Kentucky, by W. L. Sutton, M. D., Georgetown, Ky.; Report on the Topography and Epidemic Diseases of New Jersey and the treatment thereof, by Lyndon A. Smith, M.D.; Report of the Committee on the Epidemics of Ohio, by George Mendenhall, M. D.; Report of the Committee on Medical Literature, by A. B. Palmer, M.D.; Report of the Special Committee on Medical Education, by James R. Wood, M. D.; Report on Spontaneous Umbilical Hemorrhage of the New-Born, by J. Foster Jenkins, M.D., Yonkers, N. Y.; Report on the Influence of Marriages of Consanguinity upon Offspring, by S. M. Bemiss, M.D., Louisville, Ky.; Report on the Functions of the Cerebellum, by E. Andrews, M.D., Chicago, Ill.; Report of the Treatment best adapted to each variety of Cataract, with drawings illustrating a case, by Mark Stephenson, M.D., Surgeon to the N.Y. Opthalmic Hospital; Report on the Medical Jurisprudence of Insanity, by C. B. Coventry, M.D., Utica, N. Y.; Report on the Law of Registration of Births, Marriages and Deaths, by Edward Jarvis, M. D., Dorchester, Mass.; Report on the Nervous System in Febrile Diseases and the Classification of Fevers by the Nervous System, by Henry Fraser Campbell, M.D., Prof. of Anatomy in Medical College

of Georgia; Report on Moral Insanity in its relation to Medical Jurisprudence, by D. Meredith Reese, M. D., L.L.D., etc., of N.Y.; Report on Stomatitis Materna, by D. L. McGugin, A. M., M. D., Keokuk, Iowa; Report on the True Position and Value of Operative Surgery as a Therapeutic Agent, by S. B. Flint, M. D., Louisville, Ky.; a Method for Preserving Membranous Pathological Specimens, by R. D. Arnold, M.D., Savannah, Georgia; Letter from E. D. Fenner, M.D., to Paul F. Eve, M.D., President of the American Medical Association; Prize Essay, "The Clinical Study of the Heart Sounds in Health and Disease," by Austin Flint, M.D., Buffalo, N. Y.—*Clinica Clinice Demonstranda;* Prize Essay, "Vision, and some of its Anomalies, as revealed by the Ophthalmoscope," by Montrose A. Pallen, M.D., of St. Louis, Mo.—*Dux Hominum Medicus Est;* the Plan of Organization, Code of Medical Ethics, and List of Permanent Members, end the volume.

There is a great deal of valuable information contained in this issue, and it should not only be read but be in the possession of every member of our profession who desires to be classed as intelligent. This reminds me of the fact that anybody may buy a copy of the Transactions by forwarding three dollars to Casper Wistar, M.D., Treasurer of the Association, at Philadelphia. Its sale is not confined to the membership, as has been erroneously supposed by many. The Association meets first Tuesday in May next, at Louisville, Ky., and so near, that we hope large numbers of readers will take this opportunity of attending. At some not very distant time we will recur to this treasure of knowledge and make some kind of gleanings for the readers of the *Journal;* meantime we advise every one to take steps to procure a copy for himself.

Wilson's Human Anatomy. A new and improved edition, from an enlarged London edition. Edited by Wm. H. Gobrecht, M.D., Professor of Anatomy in the Philadelphia College of Medicine, etc. With three hundred and ninety-seven illustrations on wood. Philadelphia: Blanchard & Lea. 1858.

All that is necessary in noticing another edition of this favorite work of students of anatomy is to say that it is improved. It has been more generally employed in teaching and studying

anatomy than any other book since our recollection of and participation in them.

Dr. Gobrecht has performed his duty well, and will receive the thanks of his readers.

We think that it will be some time before Wilson's Anatomy will be crowded out of dissecting rooms.

DISEASES OF THE URINARY ORGANS. A complete compendium of their diagnosis, pathology and treatment. By WILLIAM WALLACE MORLAND, M.D., Fellow of the Massachusetts Medical Society; Member of the Boston Society for Medical Improvement; one of the Attending Surgeons at the Central Office at the Boston Dispensary. With Illustrations. Philadelphia: Blanchard & Lea. 1858.

Dr. Morland informs us that this book is mainly composed of the substance of two prize essays presented to the Boylston Medical Committee. It is as it purports to be, a digest of urinary pathology. The pathology and therapeutics of the urinary organs, commencing with the supra-renal capsules above and ending with the urethra, are fairly represented; and we have no doubt it is as useful a book on the subject as the American practitioner can avail himself of. Its convenient yet ample size enables the author to present an inviting volume to the medical public.

Diabetes and other diseases that do not originate in or immediately affect the urinary organs are very properly left out; as also gonorrhœa, chancre, and specific diseases generally. The illustrations are a valuable addition to the rest of the contents in enabling us to judge of the pathological anatomy and morbid products of these organs.

We are indebted to the author, Professor J. Aitkin Meigs, M.D., for "Hints to Craniographers upon the importance and feasibility of establishing some uniform system, by which the collection and promulgation of Craniological Statistics and the exchange of duplicate Crania may be promoted." It is extracted from the Proceedings of the Academy of Natural Sciences of Philadelphia, of which he is the librarian. The subject of ethnology is becoming a very interesting one, and Dr. Meigs is an able and enthusiastic cultivator of the rich field of research which it affords.

"A Summary of the Transactions of the College of Physicians of Philadelphia" is issued in pamphlet form, and contains much very interesting and profitable matter. It contains an abstract of some of the choicest productions and inventions of the able members of that body. Its contributors are such men as Hays A. Hewson, Keating, Stille, Reuschenberger, Corson, Neill, Coates, Henry Bond, etc., who never spend their time in trifles. We may at some future time make extracts or other notice of the contents.

We have received the "Transactions of the Indiana State Medical Society, at its ninth annual session, held in the city of Indianapolis, in May, 1858." They contain several condensed yet valuable papers from the enterprising cultivators of medicine in the State of Indiana. Among them are reports from Dr. Elliott, of Indianapolis, on Chronic Diseases of the Brain; on Microscopy, by Dr. Hutchinson, of Mooresville; and Dr. Calvin West, of Hagerstown, on the same subject; and one on the Uses and Abuse of Mercury, by Dr. N. Knepplar, of Indianapolis. There are also reports of many cases which will be found quite interesting and worthy of careful perusal. We are glad to see that this intelligent assembly of medical men are paying attention to the subject of medical education, and we confidently expect from Drs. W. R. Smith, Newland, Fry and Fishback, the committee, a report next year that will be worthy of so noble and important a subject.

We are also in possession, from the authors of the "Introductory Addresses," one delivered before the medical class of the medical department of the Nashville University, by J. Berrien Lindsley, M.D., Chancellor of the University on Medical Colleges; one by J. W. Benson, M.D., Professor of Anatomy in the medical department of the University of Louisville; and one by J. W. Freer, M.D., Professor of Anatomy in Rush Medical College. They are all respectable productions, and must have been highly entertaining to the classes before which they were delivered.

Professor John H. Rauch, President of the Iowa State Medical Society, has placed upon our table the "Constitution, By-Laws and Code of Ethics of that Institution, with the Transactions of the years 1857 and 1858." It contains the address of Dr. John Liveter, retiring President, which is recommended by the two excellent qualities, brevity and sound sense. There are no other original papers, which we hope will not be said of next year's Transactions.

We have also received an elaborate and practical inaugural dissertation on Strychnia, presented to the faculty of McGill Medical College, Montreal, Canada, prior to receiving the degree of Doctor of Medicine and Surgery, by Alexander P. Reid. This thesis was adjudged worthy of publication by the faculty—which, by the way, we should be glad all thesis were. It certainly manifests a great deal of industry and scientific attainments in its author, and promise for him a useful if not brilliant future.

The Illinois Teacher, organ of the State Association. We have received the December No. of this valuable educational journal. It is quite equal to any of its excellent predecessors. Mr. N. Bateman, its accomplished and untiring editor, has done battle worthy of the all-important cause in which he has been engaged. He takes a manly and independent leave of his numerous readers and editorial confreres. The approaching session of the Teachers' Association on December 28th will have selected his successor before this paragraph meets the eye of our readers. We hope their choice will be marked by the wisdom which prompted them when they selected Mr. Bateman. Meantime we cannot refrain from wishing them and their ex-editor God-speed, and advise all who feel interested in the cause of education to encourage it by subscribing for this able periodical. It is published at Jacksonville, Illinois, at the extremely low rate of one dollar a year in advance. Now is the time to subscribe to begin with the forthcoming volume.

ABSTRACTS AND ITEMS.

PREPARED BY THE JUNIOR EDITOR.

BURNS.

Two parts of collodion and one of castor oil make an excellent mixture for burns. The mixture should be spread on with a camel's hair pencil. It forms a cuticle that protects the parts from the air and other irritants, and is perfectly painless. It may be allowed to remain until suppuration begins, when a poultice of light bread and water will remove it. The healthy granulating surface may be dressed with simple means, and readily heals. Should cracks occur in this artificial cuticle, a little more of the article will close them up. Two coats put on the first and second day will answer the purpose.

NEURALGIA.

Prof. Crawcona, of New Orleans, in the *Hospital Gazette*, recommends subcutaneous injection of solution of morphia as a remedy for obstinate neuralgia. Quarter grain of sul. morph. dissolved in ten drops of water, by means of a fine syringe injected under the skin, in the neighborhood of the part affected, repeated once or twice in twenty-four hours.

PUERPERAL CONVULSIONS.

Venesections, cathartics with castor oil, cold to the head, chloroform and delivery, are the tested and attested remedies for this dreadful complication of labor.

SALINE TREATMENT FOR DYSENTERY.

First give a cathartic dose of sul. magnesia, and follow with a solution of one ounce of the sulphate to six ounces of water, in teaspoonful doses, every two hours. It will be necessary to lengthen out the time of giving the solution to three, four or six hours, or twice a day, as the cure proceeds, to prevent too frequent movement of the bowels. This simple treatment in uncomplicated cases, begun early, is often sufficient to effect a complete cure.

SORE NIPPLES.

Two parts of collodion and one of castor oil make an excellent artificial cuticle for cracked nipples. One part of prepared chalk to two parts of rosin and simple cerate make an excellent ointment for them. One drachm of tannin to an ounce of glycerine will often have a good effect upon them. In chronic cases, a single application of a wash of sixty grains of crystalized nitrate of silver to half an ounce of pure water will often dispose them to heal. The application should not be repeated in less than four days, if it should become necessary to repeat at all.

APOCYNUM CANNABINUM FOR AGUE.

Dr. Trent, in the *Southern Medical and Surgical Journal*, recommends the following formula as an excellent remedy for chills:

℞	Apocynum cannabinum,	ʒj.
	Olei mg. pip.,	guttæ xvi.
	Syrup,	q. s.

Mix, ft. pil. No. xii. One to be taken every two hours in time to take four before the expected paroxysm, and thus repeated until they cease to return. The twelve are generally enough. It is well to precede them with an anti-bilious cathartic, but is not always necessary. He details several cases cured in this way.

TETANUS (TRAUMATIC).

Dr. G. A. Jones, of Texas, reports a case in the *Nashville Journal* of this formidable disease cured by a mixture of chloroform and sul. ether; at least, we think they were the essential means used. He administered the mixture by inhalation, so as to keep his patient relapsed below the point of spasmodic action for eight days. The convulsions gradually diminished after the third day until on the eighth they entirely disappeared. His other treatment consisted of sinapisms to spine, calomel and compound extract of colocynth as cathartic second day, injections, castor oil to keep bowels soluble. Towards the close, nourishment and tonics were used. The patient was anestheticated at the approach of every paroxysm of convulsions without either regard to quantity or frequency of application of the means.

ASCARIDES.

Dr. Schultz recommends a clyster formed of argenti nitras grs. x. to xv., aqua distil. ℥iv., to be used for ascarides. It may be repeated every day until it succeeds.

INFANTILE CONVULSIONS.

Prof. Simpson uses chloroform very freely in infantile convulsions.

ALBUMINURIA.

Dr. C. Lees, in the Dublin *Hospital Gazette*, recommends a persevering treatment of albuminuria, with iron and occasional cathartic of jalap, a vapor bath once a week and flannel next the skin. He records a case cured. The treatment should be continued for several months.

PEDICULUS PUBIS.

Use a lotion of bi-chloride of mercury twelve grains, alcohol and distilled water each two ounces (or whisky four ounces).—Dr. Ryding, *Lancet.*

ASH TEA AS A REMEDY FOR THE BITE OF A RATTLESNAKE.

A correspondent of the Nashville *Journal of Medicine and Surgery* affirms that a tea prepared from the bark of ash is a reliable remedy for the bite of the rattlesnake. He does not give the variety of the ash tree used, nor very definite directions as to its preparation. His treatment, however, is the administration of "about one pint of ash tea, prepared by taking a handful of the inner bark of the ash, adding one quart of water, and boiling down to a pint." About half a gill is to be taken every twenty minutes.

RIGID OS UTERI.

Tartar emetic in one-eighth of a grain doses every hour will often relax an obstinately rigid os uteri in a much shorter time than it would naturally yield. Look out for all obliquities in cases where the os is a long time dilating, particularly in multipara.

COLLODION IN HERPES ZONA.

Prof. Fenger has of late been treating this troublesome affection advantageously by collodion, smearing it, by means of a pencil, over the whole of the vesicles, their bases and circumference, or wherever there is redness. It should be applied as early as possible, and three layers in thickness, renewing it next day. He finds the addition of castor oil to the collodion an improvement; but especially prefers the solution of cotton wool in acetic ether.—*Schmidt's Jahrb.: Med. Times and Gazette.*

ERUPTION ON EDGE OF EYELID.

℞ Hyd. precpt. rub.,
Ung. simp., aa. pt. 1.

Pulverize thoroughly the first article and mix intimately with the latter. Apply at bedtime to the affected parts, being careful not to touch the conjunctiva; or touch each pustule with strong tincture of iodine. When this last is used, the lids should be everted so as not to touch the eye. Or with a pointed stick of nitras argenti touch each pustule separately; or touch the edges of the lid all along the affected part with sul. cupri. Before making any of these applications, the scabs and scales of cuticle should be carefully removed by tepid water, a fine probe or tooth pick.

EDITORIAL.

PRELIMINARY EDUCATION AND MEDICAL COLLEGES.

In a recent number of the *Journal*, we copied a part of the published proceedings of the Board of Regents of the University of Michigan, in relation to the adoption of a standard of preliminary education to be required for admission into the medical department of that university. It appeared that the adoption of the proposed standard was actively opposed and defeated by two members of the medical faculty. This opposition to a very important measure, from men who hold salaried professorships

in a state institution richly endowed, and one of whom had, for several years, industriously spread the impression that the exaction of a high standard of preliminary requirements constituted one of the chief merits of the institution, took many, even of their own friends, by surprise.

Some of the medical periodicals also noticed the action of the professors with decided disapprobation. This called forth from the gentlemen concerned, Professors Palmer and Sager, a letter in defence of their action, which was published in the *American Medical Gazette*. In this letter they seek to justify themselves by raising three leading objections to the proposed standard of requirements, as follows:

First. It requires each student, before admission to the medical department, to possess a certain amount of knowledge concerning the Greek and Latin languages. This, the learned professors seemed to think, was, at this age of the world, unnecessary.

Second. The possession of the proposed amount of preliminary education was to be ascertained, and certified to, by competent persons *not connected* with the *medical* department of the university.

This objection is certainly a singular one to emanate from members of the medical faculty. Inasmuch as the provision objected to relieves them entirely from the loss of time which a preliminary examination would require, and also from the responsibility of making it, one would suppose that it was shaped designedly for their satisfaction. And yet Professors Palmer and Sager really urge this as the chief ground of objection; not, however, because they seem to entertain any fear that other parties would be careless and unfaithful in making the required examinations. On the contrary, it is plainly evident from their letter that they fear the examination conducted by those having no place in the medical department would be *faithful*, and therefore so much dreaded as to deter large numbers from coming to the school; while if it were left entirely in the hands of the medical faculty it could be made as *nominal* as the ignorance of the student might require. In other words, the letter of Professors Palmer and Sager plainly implies that the medical

department of their university would be quite willing to receive the credit abroad which a provision for exacting a high standard of preliminary education would give it, provided the examinations for determining such standard were to be conducted by the faculty alone, so as to enable them *practically* to admit whoever might apply. Comment upon such a position is unnecessary.

The *third* objection urged in the letter is, that the exaction of such a standard as was proposed would exclude a large proportion of those students who would otherwise attend, and therefore greatly diminish the number of students in the medical department of the university. To cover the selfishness of this objection, the professors become suddenly *democratic*, and gravely claim that the university being a state institution with ample pecuniary endowment, the people of the state have a right to its advantages for their intellectual culture; and, of course, the medical students of the state must have access, by right, to the medical department: therefore, any provision or standard of preliminary qualifications, which would restrict this right of access, would be unjust to the profession of the state. It requires but one or two plain questions to show the extreme absurdity of the position.

If a young man, who had never attended the primary schools sufficient to gain a competent knowledge of reading, writing, spelling, and arithmetic, should apply to Chancellor Tappen for admission to the literary department of the university, and propose to enter at once upon the course of study required for the degree of A.B., would he have a right to admission merely because the university is a *state* institution? Of course not. And pray tell us, by what process the same ignoramus can have any more *right* to admission into the *medical* department, and be put on a course of study for the dignified title of M.D.? It is undoubtedly true that the students of Michigan, whether literary or medical, have a right to admission into her university; but only on condition that they *qualify themselves* to profit by its several courses of instruction. To claim admission without such qualifications, would be as absurd as for the idle loafer to assert his right to a portion of the products of the soil without bestowing any of the labor necessary for their

production. Such are the lame and impotent objections urged by Professors Palmer and Sager against the adoption of a just and appropriate standard of preliminary education for admission into the medical department of their state. We agree with the editors of the Cincinnati *Lancet and Observer*, that the position thus assumed by those representing the only independently endowed and salaried medical school in the North-west, is unworthy of themselves and highly derogatory to the interests of the whole profession. That an improvement in the preliminary education of medical students is a *sine qua non*, as a foundation for elevating the character and usefulness of the whole profession, is apparent to every intelligent man among us. And if a faculty, possessing the pecuniary independence of that connected with the Michigan school, would cheerfully and faithfully second the proposition made by their Board of Regents on this subject, they would speedily induce efficient action in the same direction in the several state and local medical associations. This again would react upon the faculties of other schools, and we should soon have a sure basis for improvement in the whole system of medical education.

But so long as a miserable ambition to swell the *mere number* of their classes induces them to deliberately block the wheels of advancement, their influence tends strongly to paralyze the efforts of all around them. While on this subject, we would call the attention of the profession to the resolutions adopted, almost unanimously, at the first meeting of the American Medical Association, in 1847. Will not the several state and local medical societies in the North-west take them into serious consideration at their next regular meetings?

They are as follows:

"*Resolved*, That this Convention earnestly recommends to the members of the medical profession throughout the United States, to satisfy themselves, either by personal inquiry or written certificate of competent persons, before receiving young men into their offices as students, that they are of good moral character, and that they have acquired a good English education, a knowledge of natural philosophy and the elementary mathematical sciences, including geometry and algebra, and such an acquaintance, at least, with the Latin and Greek languages as will enable

them to appreciate the technical language of medicine, and read and write prescriptions.

"*Resolved*, That this Convention also recommends to the members of the medical profession of the United States, when they have satisfied themselves that a young man possesses the qualifications specified in the preceding resolution, to give him a written certificate stating that fact, and recording also the date of his admission as a medical student, to be carried with him as a warrant for his reception into the medical college in which he may intend to pursue his studies.

"*Resolved*, That all the medical colleges in the United States be, and they are hereby recommended and requested to require such a certificate of every student of medicine applying for matriculation; and when publishing their annual lists of graduates, to accompany the name of the graduate with the name and residence of his preceptor, the name of the latter being clearly and distinctly presented as certifying to the qualification of preliminary education."

ACKNOWLEDGMENTS.

We are much obliged to the Esculapian Society for the generous remittance received from their secretary. We shall ever take pleasure in giving publicity to such portions of their transactions as they shall see fit to send us.

As the present number commences a new volume, we hope all our friends will remember it as a favorable time to commence their subscriptions. We shall do all in our power to make the present volume decidedly more valuable than any of the preceding ones.

PRIZE ESSAYS.

At the last annual meeting of the Illinois State Medical Society, two prizes were offered; one of $50, for the best essay, without limiting the choice of subjects; and the other of $20, offered by Dr. J. M. Steele, for the best essay on the Use of Opium in Inflammatory Affections.

Competition for the latter prize is restricted to members of the profession under forty years of age. Both of these offers have been repeated for two or three years, without eliciting any efforts to secure them. We hope it will not be so this year.

Papers designed for either of these prizes should be accom-

panied by a sealed envelope, containing the name of the writer, and forwarded either to the chairman of the Committee on Prize Essays or to the permanent secretary of the society, on or before the first of May next.

N. S. DAVIS,
Permanent Secretary of the Society.

MEDICAL SOCIETY.

We clip the following from the *Moline Independent:*

At the annual meeting of the Rock Island Medical Society the following officers were elected:

President—S. C. Plummer.
Vice-President—W. A. Knox.
Recording Secretary—C. Truesdale.
Cor. Sec. and Treasurer—E. H. Bowman.
Board of Censors—P. Gregg, W. A. Knox, W. F. Cady.

Dr. Bowman, the outgoing President, delivered a valedictory address, and Dr. Plummer read an interesting essay on the subject of "Puerperal Fever." Dr. Vincent of Hampton, and Dr. Hewitt of Camden were added to the society as members. The society meets again the second Wednesday in April.

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Atropine .....in bulk
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Digitaline.....in bulk
" .....Bottles of 60 Granules
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" .....Bottles of 100 Granules
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Veratrine .....in bulk
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" .....Bottles of 50 granules
Conicine.....in bulk
" .....Bottles of 100 Granules
Extract of Belladonna.....in bulk
" " Bottles of 100 Granules
" and Powder of Belladonna.....in bulk
" " " Bottles of 100 Granules
" Hyoscyamus .....in bulk
" " Bottles of 100 Granules
" Ipecac.....in bulk
" .....Bottles of 100 Granules
" Opium.....in bulk
" " .....Bottles of 100 Granules
Proto-Iodide of Mercury.....in bulk
" " Bottles of 100 Granules
Colchicum (each granule is equal to 2 drops of Tinc.).....in bulk
" " " Bot. of 100 Granules

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" " Vallet's formula .....in bulk
" " " Bot. of 130 Dragees
Carbonate of Manganese and Iron.....in bulk
" " " Bot. of 130 Dragees
Kermes, 1-5 grain..... .....in bulk
" " .....Boxes of 80 Dragees
Santonine, ½ grain .....in bulk
" " .....Boxes of 40 Dragees
" " .....Boxes of 20 Dragees
Bi-Carbonate of Soda, 4 gr. each.....in bulk
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Magnesia and Rhuburb, 1 gr. of each...in bulk
" "Bottles of 130 Dragees

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Aloetic, 4 grains..... "
Assafœtida, 4 grains..... "
Aloes and Assafœtida, 4 grains..... "
Dinner Pills, Lady Webster's, 3 grains.. "
Comp. Calomel, Plummer's Pills, 3 grs. "
Blue Pills, 3 grains..... "
Opium Pills, 1 grain..... "
Calomel Pills, 2 grains..... "
Opium et Acet. Plumb. each 1 grain.... "
Extract of Rhatany, 1 grain..... "

Dragees of 1 *grain each.*

Quevenne's Iron, reduced by Hydrogen.in bulk
" " " Bottles of 100 Dragees
Conicine.....in bulk
Proto Iodide of Iron..... "
" " " .....Bottles of 100 dragees
Lactate of Iron.....in bulk
" " .....Boxes of 130 Dragees
Sulphate of Quinine.....in bulk
Valerianate of Quinine..... "

Dragees of 2 *grains each.*

Citrate of Iron.....in bulk
" " .....Bottles of 130 Dragees
Willow Charcoal..... .....in bulk
" " .....Bottles of 150 Dragees
Diascordium.....in bulk
" .....Bottles of 130 Dragees
Anderson's Anti-bilious and Purg. Pills.in bulk
" " " Boxes of 80 Dragees
Extract of Gentian.....in bulk
Iodine of Potassium..... "
Calcined Magnesia..... "
" " .....Boxes of 200 Dragees
Rhubarb..... .....in bulk
" .....Boxes of 100 Dragees
Ergot, powder cov'd with sugar as soon as pulverized.....in bulk
Phellandria Seed..... "
" " .....Bottles of 150 Dragees
Washed Sulphur.....in bulk
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Chelonin,	Chelone Glabra,	1 25
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Digitalin,	Digitalis Purpurea,	1 50
Euonymin,	Euonymus Americanus,	1 50
Euphorbin,	Euphorbia Corolata,	1 50
Eupatorin, (Perfo.)	Eupatorium Perfolia,	1 00
Eupatorin, (Purpu.)	Eupatorium Purpureum,	1 50
Gelsemin,	Gelseminum Semper.,	2 00
Geranin,	Geranium Maculatum,	0 62
Helonin,	Helonias Dioica,	1 75
Hydrastin,	Hydrastis Canadensis,	1 25
Hyosciamin,	Hyosciamus Niger,	2 50
Irisin,	Iris Versicolor,	1 00
Jalapin,	Ipomœa Jalapa,	1 00
Juglandin,	Juglans Cinerea,	0 75
Leptandrin,	Leptandria Virginica,	0 75
Lupulin,	Humulus Lupulus,	1 00
Macrotin,	Macrotys Racemosa,	0 62
Menispermin,	Menispermum Canad.,	1 00
Myricin,	Myrica Cerifera,	0 62
Phytolacin,	Phytolacca Decandra,	1 00
Podophyllin,	Podophyllum Peltatum,	0 75
Populin,	Populus Tremuloides,	0 50
Prunin,	Prunus Virginiana,	0 75
Rhusin,	Rhus Glabrum,	1 00
Rumin,	Rumex Crispus,	$0 75
Sanguinarin,	Sanguinaria Canadensis	0 75
Scutellarin,	Scutellaria Lateriflora,	1 50
Senecin,	Senecio Gracilis,	1 50
Stillingin,	Stillingia Sylvatica,	1 25
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THE CHICAGO

MEDICAL JOURNAL.

VOL. II. FEBRUARY, 1859. No. 2.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

CORRECT USE OF ALKALIES AND ACIDS IN PRACTICE.

(Read to Cook Co. Medical Society.)

BY E. ANDREWS, M. D., CHICAGO, ILLINOIS.

The contest between vitalists and physicists is still maintained in some quarters to the injury of our science.

While the extreme vitalists maintain that common chemical affinities, such as those between alkalies and acids, have no existence in the living body, the ultra physicists claim that all the operations of life are mere modifications of the experiments in a chemist's laboratory. It is time to have done with this contest; but as the objections of one party or the other stand opposed to every possible doctrine on the relations of acids and alkalies to the tissues, the reader will indulge me in a few words to show that both sides are partly wrong. In the first place, living tissues are subject to all the mechanical laws, such as gravitation, momentum and impenetrability, also to the laws of levers, pulleys, valves, hydrostatics and pneumatics—for all

these principles of inorganic nature are brought in and used as constant agents in physiologic life.

The subtler laws of the imponderables are equally efficient. Organic tissues have color, reflect light, and conduct heat and electricity as well as inorganic substances. All the laws of optics work with unfailing precision in the living eye, and the principles of acoustics do not fail when they are applied to the ear.

It is, however, in the department of chemistry that inorganic forces have been most strenuously denied access to living tissue. There is something incredible, however, in the assertion, that common chemical laws are entirely suspended during healthy life, if we consider that even the coarsest mechanical principles are not obliterated by vital force. If mechanic, hydrostatic, pneumatic, acoustic, optic and electric forces all work in the body, it is not difficult to believe that chemical affinity may have a place there also, and that an acid will saturate an alkali within the system as well as out of it. If facts are found pointing to this conclusion, vitalism should not declare it impossible.

On the other hand, the sweeping assertions of those who say that *all* living functions may be reduced to those few physical laws which are known to the natural philosopher and to the chemist, are presumption and folly. It is plain, beyond the necessity of argument, that living cells exercise functions which retorts do not imitate, and that laws are in operation in them which never have been, and probably never will be, reduced to the rules of the laboratory.

The position, therefore, will be assumed in this article, that there is no law which entirely prohibits the usual reactions of acids and alkalies in the system, and consequently the relations of these reagents to each other are properly the subject of examination and regulation by practical men in our profession.

The chief alkaline substances found in the human body are potash, soda, lime and ammonia. These are held in various states of combination with organic and inorganic substances, some of which are stable and neutral, as phosphate of lime in the bones; while others are feebly combined so as not to be

neutralized, but to yield an alkaline reaction to the most delicate tests. Of the latter, the alkaline secretions of the salivary, lachrymal, hepatic and pancreatic glands are examples, to which may be added the blood, the semen, the secretions of serous and synovial membranes, the albumen around the ovum, and the serum of the areolar tissue.

Different alkalies are found in different parts, and their functions are various, but a somewhat general truth which meets us at the outset is this—*most of the alkalies promote a liquid form of protein compounds.* Thus, the liquid condition of albumen in the egg is dependent upon soda, and if the soda be neutralized by any acid, with certain exceptions hereafter to be mentioned, the albumen is immediately coagulated, or, in chemical language, is precipitated. The fibrin of the blood is held in solution, according to Dr. Richardson, by ammonia, which, being a volatile alkali, escapes when that fluid is exposed to the air, and precipitates the fibrin in the form of a clot, while the soda in the albumen of the serum not being volatile, retains that part of the blood in a liquid form. Hence the separation of the clot and the serum. An excess of ammonia will redissolve the clot, and even liquify the blood corpuscles themselves. This function of ammonia in the blood is proved by a variety of conclusive experiments on living animals, and is further shown by the fact, well known to every demonstrator of anatomy, that in the dead body the blood of the vena cava, which is surrounded by cavities secreting alkaline fluids, seldom coagulates until it is allowed to escape into the open air; while, in the very same subject, the blood of vessels which are imbedded among large muscles will form firm clots which may be drawn out of the veins like strings, and often will be found even in the arteries resisting the passage of injections. It seems to me that the explanation is simple: the large mass of blood in the vena cava does not favor the escape of ammonia, and the alkaline serum of the neighboring peritoneum certainly will have no tendency to neutralize it; but the juice of the muscles is acid, and immediately after death the action of endosmosis causes it to transude into all the nearest veins, effectually neutralizing the ammonia and consolidating the fibrin; hence

the difference in the condition of the blood in the two cases.

From these facts, it seems to be a reasonable conclusion, that the alkalies (assisted by the acid phosphates) are the means used by nature to produce the liquid forms of protein.

If so, may it not be true that those pathological states which are marked by an excessive tendency to liquifaction, or, as the phrase is, "a breaking down" of the tissues, involve, as one essential condition, an excess of alkalies, especially of ammonia.

The following reasons lead us to this conclusion: First, this type of disease is often produced by putrid animal exhalations. Now, one of the earliest and most persistent products of animal decomposition is ammonia and its kindred compounds. It is evolved abundantly, not only from decaying flesh, but also from decomposing animal excretions of every kind, as sweat, urine, etc. Hence, it steams up in privies in combination with sulphuretted hydrogen; it arises in all filthy crowded places, as in ill-conditioned hospitals, camps, jails and ships; and it is formed in the human body itself, not merely in the last stages of diseases where the excretions are retained, but also in healthy subjects. Where patients are much exposed to this kind of influence, we find all the consequences which would naturally be expected. The muscular system failing in the amount of acid necessary to its activity, becomes feeble and prostrate, a violent effort at excretion of the alkalies often takes place in the form of erysipeloid infiltration, excessive suppuration, with pus so highly alkaline as actually to dissolve and abrade sound tissue over which it flows, or alkaline and profuse diarrhœa, or some other mode of elimination.

If the emunctories fail to get rid of the excess, the tissues at length begin to yield to the solvent power in ways perceptible to the eye. The blood corpuscles are liquidated; the walls of the small vessels often give way here and there, as in the hæmorrhagic type of confluent small pox, forming petechiæ; the solid tissues are obviously unable to consolidate protein enough to sustain their action; and the whole condition is said to be "low" and "typhoid."

Perhaps the true typical form of alkaline disease is erysipelas.

By this term I mean that malignant disease which is the terror of surgeons, and not the mere cutaneous eruption to which Prof. Meigs seems to restrict the name. The clearest and best definition of erysipelas is probably the one adopted and ably explained by Prof. Pitcher, of Detroit, who has given the subject the most masterly exposition extant.

Erysipelas is an inflammation, distinguished by a peculiar animal poison of great virulence, and capable of propagation by innoculation. It is essentially an aplastic disease, producing an abundant effusion of poisonous serum or pus, which is limited by no plastic lymph, but spreads indefinitely through the tissues. The analytic mind discovered at once that there are here two essential points, viz: the poison and the aplasticity, These two elements combined will constitute the disease; neither of them will do it alone.

It is to be observed here that erysipelas eliminates itself by the alkaline secretions, especially pus and serum; and it is singular to observe its indisposition to spread into tissues which oppose to it an acid reaction. The interstitial fluid of the muscles is acid: now, it is a matter of every-day observation that erysipelas will spread indefinately in the areolar tissue whose fluid is alkaline; it will cause this tissue to slough from whole extremities; it will burrow deep between the muscles, so that the dead tissue may be drawn out from deep recesses like shreds of wet tow,—but the muscles stand out round, granulating and uninjured. Thick muscles seldom or never slough from the direct effects of erysipelas. Is not this remarkable exemption due to the fact that the acid fluid of muscular tissue opposes an effectual barrier to the action of the alkaline poison?

The same difference, in a lesser degree, is observable in different persons. Erysipelas will not take its usual type in a strongly plastic system, or, what amounts to the same thing, in a system well supplied with acids. It is well known to practical anatomists that the poison of dissection wounds only exerts its effect fatally when it produces erysipelas, but that strongly plastic systems resist it, and present merely local inflammation. A striking instance illustrating this principle occurred in the

experience of my respected preceptor, Prof. Pitcher, of Detroit, and which I take the liberty to repeat.

Prof. P., in company with a medical friend, made a *post-mortem* examination of the body of a patient who died of erysipelas. Both these gentlemen wounded themselves in the operation, and they were thus innoculated with the poison. The innoculation took effect in both, but in different ways. Prof. P.'s wound inflamed, but the progress was limited by plastic effusion, and a carbuncle was the result. The other gentleman, whose system seemed to have less plastic power, had erysipelas in the usual form, and died of its effects.

From these and a variety of other considerations we derive the conclusion that *malignant aplasticity requires, as one condition of its very existence, an excess of alkalies.* If active free acids (except the phosphoric) be present in abundance, this malignant pathological state cannot exist. The question also naturally suggests itself whether that mysterious condition called epidemic influence may not be, in many cases, merely a deficiency of acids and an excess of alkali in the system, produced by atmospheric or other general causes, which modify the chemistry of the living body. There is at such times the same aplastic type of disease, the same want of vital resistance to it, the same low grade of action, and the same tendency to solution of blood corpuscles and breaking down of tissues, which we observe in erysipelas. Indeed, so striking is this fact that Prof. Pitcher maintains that the malignant element in nearly all asthenic epidemics is identical with the peculiar poison of erysipelas; an opinion which contains much truth of the utmost practical value. It is probable that the asthenic epidemics nearly all derive their aplastic character from excess of alkalies; and we know that many of them are capable of propagating erysipelatous inflammation by innoculation, even when the original subject had no appearance to the eye of the latter disease.

The different proportions of acids and alkalies in the system give rise to several *types* or *grades* which run through almost every form of disease, and are easily recognizable in well-marked cases. The diagnostic marks of alkaline excess are *asthenicity* and *aplasticity*, while the signs of acid diathesis (except the phos-

phoric) are *sthenicity* and *plasticity*; while a due balance of these chemical vital agents will be manifested by the middle type of disease, such as simple inflammations, etc.

The differences thus indicated are traceable through every class of disorders. In peritonitis of the sthenic type and acid diathesis we have plastic effusion, glueing the intestines together; but in the alkaline diathesis we have purulent and other aplastic effusions. The plastic forms are pretty generally cured, but the aplastic variety is much more fatal, as in the malignant variety of puerperal fever. In pleurisy, if the diathesis be acid the result will be firm adhesions; but if excessively alkaline, purulent effusion will ensue. If bronchitis occur in an acid system it will be marked by the expectoration of pure mucus, by excessive development of the contractile fibres of the bronchi, occasioning spasmodic asthma, or by sudden metastases, such as are related by Bulkley in his rejected essay upon Rheumatic Bronchitis. But if the patient be under the influence of the alkaline diathesis, the inflammation will take the form of a catarrh, with puruloid expectoration, which often runs a rapid course.

The same kind of difference will be found to prevail in affections of almost every organ. When the acid diathesis is present, every disease takes the sthenic type; its effusions are plastic, suppuration is difficult, and all the phenomena approximate to that type of acid diseases—rheumatism. When the alkaline diathesis prevails, diseases are asthenic, effusions are aplastic, and tissues break down, and the disease approximates to the character of erysipelas.

If, for instance, the meninges of the brain be inflamed in an acid constitution, the membranes will be thickened, and the patient may fall into a chronic insanity, and in that state live out his days; but if the alkaline excess be present, the disease is of a different character. It runs a rapid course, the vessels relieve themselves speedily by an effusion of pus or serum, and the patient quickly dies.

If the case be scarlatina, in a plastic constitution, it will be of the sthenic grade and the simple variety; but if the alkaline diathesis prevail, the case will be asthenic, dangerous complications arise, and the patient is peculiarly liable to a

malignant sore throat, which sloughs, ulcerates, and destroys life.

One of the most instructive of all the illustrations on this point is afforded by the two varieties of small pox. If this disease attacks a system well supplied with acids, and therefore strongly plastic, the disease is of the variety which we call "distinct." The pustules have firm boundaries of plastic effusion around them, which limits their spread, and separates them from each other; but if an excess of alkalies are present, the plastic effusion is not properly formed. The feeble boundaries are dissolved, the pus spreads irregularly in all directions, and contiguous pustules thus coalesce, constituting the confluent form of the disease. Every practitioner knows that the confluent character of the pustules is not merely owing to their close proximity to each other. I have seen distinct small pox where the pustules were as numerous and close together as in the confluent form, but the plastic power being strong, every pustule has a clear, smooth and circular border. If two adjoining pustules touched at their edges, they were separated by a sharp, fine red line for some time before coalescing. There was no loose spreading of one pustule to meet another.

Probably the best type of a purely plastic disease is found in rheumatism, which, in its connection with the acid diathesis, has been ably treated of by Fuller. In perhaps the majority of ordinary cases of disease, there is no remarkable excess of either alkaline or acid in the system, and in these cases of course no application of these doctrines can be made. In such a condition of the system we may have alkaline effusions in one part of the body and excess of the plastic deposits in another. The local influence in this case is sufficient to move the well poised balance. Thus, in the centre of a furuncle the mere weakening of the circulation resulting from the obstruction of the vessels causes the protein to assume the alkaline and liquid form of pus, while the circumference of the tumor continues in a firm plastic condition. Prof. Pitcher has published one well-marked case in which the same patient had rheumatism and erysipelas at the same time. I believe this combination to be very rare; yet, from the effect of local disturbances in the system, and where

the general diathesis is not strongly acid or alkaline, I think both these diseases may co-exist even in portions of the body closely contiguous to each other.

The type of aplastic diseases may be found in erysipelas. The symptoms indicating this we have already discussed. That this aplasticity depends upon an excess of alkalies is shown by the chemical character of the remedies which have established the best reputation in that disease. The remedies which have been most approved in erysipelas are, almost without exception, such as have the power of neutralizing alkalies. The articles referred to are the following, viz: mur. tr. iron, tr. iodine, sulphate of iron, sulphate of copper, sulphate of quinine, nitrate of silver, bi-chloride of mercury, and mineral acid. Perhaps also we may add the favorite domestic remedy, the cranberry poultice.

Now let us look a moment at the reactions of these substances which have been approved by the experience of the profession as efficient in erysipelas. First, muriated tr. of iron. This substance contains the per-chloride of iron as its basis. It is extensively used as an internal remedy. The per-chloride of iron, whenever it meets with an alkali, either potash, soda or ammonia, immediately yields up its chlorine, and converts the base of the alkali to a chloride, destroying its solvent power in the tissues. It will be recollected that this is the substance sometimes used to form a clot in the cavity of an artery, and thus to plug it in lieu of ligating. It effects this object by neutralizing the ammonia which holds the fibrin of the blood in solution, and thus precipitating that substance. When given internally, it probably reduces the alkalinity of the blood so nearly to neutrality that that fluid can no longer exude alkaline; but on the contrary, the highly alkaline serum already effused into the inflamed areolar tissue begins, by common chemical laws, to recede again by endosmosis into the less alkaline blood.

Bi-chloride of mercury, as a local application, operates on the same principle. Its chlorine is feebly held and is readily given up to the alkaline bases wherever they meet.

Tr. of iodine, when it meets ammonia, neutralizes it by converting a part of it into iodate of ammonia, and the remainder

into iodide of nitrogen, effectually destroying its alkaline qualities. When iodine meets potassa and soda, or their carbonates, it converts them into iodides and iodates of potassium and sodium. Hence the efficiency of this favorite remedy.

The sulphates of iron, copper and quinia all yield up sulphuric acid on contact with the alkalies.

Nitrate of silver, in like manner, yields nitric acid.

Mineral acids act directly of course upon the alkalies. The cranberry poultice seems to have some effect; and if so, it acts undoubtedly by virtue of the acid the berries contain.

The vegetable acids, when given by the mouth, are probably inert, because, as has been well proved by physiologists, they are digested and destroyed; and, as most of them hold a little alkali in solution, the alkali remains after the acids are destroyed, and increases the excess already existing.

If these principles embody any portion of truth, their application are of the utmost practical value. They furnish us the clearest possible rules for the use of the acids and alkalies in medicine.

In the confluent form of small pox, in erysipelas, and in the low aplastic types of all diseases, we should administer freely either mineral acids or such salts as will easily yield them up, or else such iodides and chlorides as part with their iodine and chlorine most readily. The following cases may illustrate the practical application of these ideas:

M. C. was attacked with small pox in apparently a virulent form. He never perfectly reacted. He sunk under the shock, and died before the eruption was fully out. His sister, a young lady, took the disease. Being of a more vigorous constitution, she resisted the shock better than her brother, but still the prostration was great, and the low typhoid condition gave me the gloomiest anticipations of the result. The pustules began tardily to make their appearance, but as thick as they could stand upon the skin. Anticipating a confluent case, I commenced the administration of mur. tr. of iron; dose, thirty drops every two hours; and continued until I believed the system was well saturated. The tone and vigor of her system improved greatly. The pustules were as thick as they could stand upon the skin, but

they filled well, and though they literally crowded each other, yet each one preserved a clear, smooth outline. Only a very few, where they were the most crowded, coalesced with each other. The case convalesced favorably.

Mr. B. was daily occupied in the care of a friend who was on his death-bed with malignant scarlatina. There was much sloughing and inflammation of the sick friend's throat. Mr. B. had a small abraded pimple on the ala of the nose, which probably received poison by contact of the hand after lifting the sick man. Erysipelatous inflammation immediately commenced at the pimple and spread over half the face. I placed the patient at once on his back in bed, and kept on night and day ice-cold lotions of diluted muriatic acid. In twelve hours the disease began to subside, and at the end of thirty hours scarcely a trace of it was left. It may be of interest to state, that another attendant upon the same case of scarlatina was attacked with several abscesses on the sides of the neck and with a felon in the thumb.

In the light of these principles we see why erysipelas, in the form which is technically called absorption of pus, carries off so many surgical patients in badly kept hospitals. The decomposition of all nitrogenized animal matter gives rise at once to free ammonia. The perspiration, the urine, the fæces, the exhalations from the lungs, the pus, the blood, the serum,—in short, everything animal which remains a short time in the open air of a ward begins to putrify and exhale ammonia. This is inspired and absorbed by every patient present, and results in an alkaline diathesis that makes every surgical case one of danger.

Finally, the practice of giving ammonia as a stimulant in diseases which are marked by a tendency to liquifaction and breaking down of tissues, is irrational. The temporary stimulus which it communicates is desirable, but the absorption of it contributes to that excess of the alkalies which is already destroying life. It is to be feared that the indiscriminate exhibition of ammonia, in the last stages of malignant disease, very often hastens the coming dissolution, notwithstanding its temporary exciting power.

In conclusion, I will repeat the doctrines here maintained in the following formulæ:

1st. *Excessive plasticity and sthenicity indicates excess of acid or deficiency of alkali in the system; and considered as a diathesis, is to be combated by alkaline remedies.*

2d. *Aplasticity and asthenicity show a deficiency of acid or an excess of alkalies in the system; and this diathesis is to be combated with acids, or with such salts, chlorides or iodides, as neutralize the alkaline fluids.*

ARTICLE II.

HAS THERE BEEN A "CHANGE OF TYPE" IN INFLAMMATORY DISEASES WITHIN THE LAST TWENTY YEARS; OR, IN OTHER WORDS, "DO INFLAMMATIONS *REQUIRE* A DIFFERENT TREATMENT FROM THAT PURSUED FIFTEEN OR TWENTY YEARS AGO?"

BY B. S. WOODWORTH, M.D., FORT WAYNE, IND.

The above question has been very extensively discussed within a year past by many eminent physicians, and especially in Edinburgh, by Dr. Allison on the one side, and Prof. Bennett on the other. Many arguments have been produced by both parties in support of their respective doctrines, but I have myself no hesitation in saying that Prof. Bennet has the best of the argument. That *mankind* has changed its type, in the course of thousands of years, may be possible, although here we find two schools of anthropology, one maintaining that it has so changed, and the other that it has not. Thus, Mr. Whitehead, in his book "On Transmission from Parent to Offspring of some forms of Disease, and of Morbid Taints and Tendencies," says: "It is by no means unreasonable to suppose that races, now the most widely dissimilar, may owe their distinguishing characteristics to time and circumstances (external environments), and that as the divergence has been constantly widening, so their approximation may be supposed to have been much nearer in ages gone by. We certainly have no records of that antique date of that high contrast between

races which is now known to exist between the African and the European." But, on the other hand, the other school maintain, "that so far back as history goes, the species of animals, as we call them, have not changed. The races of men have been absolutely the same—they were distinct then for that period as at present." But admitting that mankind has not changed its type, has it even *degenerated* within the last two or three thousand years?—then an advocate for, and against this, the progressive degeneracy of the human race.

But that diseases have so materially changed their type within the last twenty years as to require a treatment diametrically opposite to that required then, seems to me so manifestly absurd as to hardly admit of an argument to controvert it.

That the treatment of inflammation and fevers, by all enlightened physicians, has undergone a great change within a few years, is well known; but, while one party attributes the result to a change in the character of these diseases—a change of type, as it is called,—the other party attributes the change to the diffusion of more correct views of pathology and improved powers of diagnosis, as well as from witnessing the better effects of the less heroic non-anti-phlogistic and less perturbative treatment now employed. The profession are, doubtless, somewhat indebted to the various medical delusions, especially that miserable delusion, homœopathy, for the knowledge of what nature can accomplish when aided by a proper regiminal course. And we are also somewhat indebted to the hydropathist for showing us (what many knew before, for, as Charles Lamb said, "it was as old as the deluge, and," he added, "like it, it killed more than it cured,") that water is also a valuable curative agent when judiciously used.

The propositions laid down by Professor J. Hughes Bennett seem to me so perfectly clear that I will transcribe them, as some of your readers may not have seen them.

Proposition 1*st*. That little reliance can be placed on the experience of those who, like Cullen and Gregory, were unacquainted with the nature of, and the mode of, detecting internal inflammations.

Prop. 2*d*. That inflammation is the same now as it has ever

been, and that the analogy sought to be established between it and the various types of fevers is fallacious.

Prop. 3*d.* That the principles on which bloodletting and anti-phlogistic remedies have hitherto been practised are opposed to a sound pathology.

Prop. 4*th.* That an inflammation once established cannot be cut short, and that the only end of judicious medical practice is to conduct it to a favorable termination.

Prop. 5*th.* That all positive knowledge of the experience of the past, as well as the more exact observations of the present day, alike establish the truth of the preceding principles as guides for the future.

It is but just to say that Drs. Allison, Gardiner, Watson and others, attempt to controvert these doctrines, but, as I think, with but little success.

Inflammation has been truly represented to be "a twofold process of increased decomposition and increased formation, having its source in a diminution of the vital control over the coerced chemical affinities in the living textures,"—or, in other words, "an altered nutrition." There is in inflammation a general lowering of the vital powers; and this being so, how absurd must be that practice which attempts to cure it by reducing the vital powers still lower, and thus retarding, if not preventing, the efforts of nature towards a cure.

I confess that I have of late years become somewhat tinctured with the ideas of Sir John Forbes, Dr. J. Bigelow and others, who believe that it is not best to meddle much with nature in *any* disease, at least, "till she indicates the proper course to pursue."

Twenty years ago, when I first settled in the Maumee Valley, it was the fashion to treat all inflammatory diseases on the strictest anti-phlogistic, most heroic way. Bleeding, tart. emetic and mercury, were the sheet-anchors in almost all cases; nor was this treatment confined to purely inflammatory diseases. It was the custom to bleed at the commencement of most of the cases of remittent fever, as well as some of the intermittents. Most practitioners there thought that remittents required a materially different plan of treatment from intermittents; and they treated

them in the Eberle manner, with bleeding, calomel, nitrate potash, ipecac, etc., *ad nauseam*, with the result of seeing the original fever, after a few days, changed into a mercurial fever which lasted for an indefinite length of time, and which generally ran into a chronic diarrhœa. If the patient happened to have sufficient recuperative energy, he recovered only after a very tedious convalescence from a disease mainly produced by the medicines. Now, under the improved treatment by quinine, and, perhaps, some mild cathartics, this same class of cases is convalescent in a couple of days, and well in a week. I need not say that the physician who then would have had the presumption to treat a case of pneumonia, peritonitis, or any other acute inflammation, without bleeding or mercury, would have been considered guilty of the grossest mal-practice, and been denounced by his professional brethren for his temerity. Although the more *sanguinary* part of this treatment has been almost universally abandoned, I am sorry to say that the treatment by mercurials and drastic cathartics is still too much in vogue in this section of the State of Indiana, especially in the rural districts. This is owing to a want of light on the subject—to an ignorance of what is going on in the medical world. The so-called regular physicians, at least, many of them, do not take the medical journals, nor buy new medical books, and thus keep up with the progressive knowledge of pathology, therapeutics, etc., etc.

Erysipelas is a disease which we used to treat in an antiphlogistic way—a disease which is as truly one of debility as the lowest form of typhus or typhoid fever. Under the antiphlogistic treatment many cases of this disease died; whereas, scarcely one per cent of sporadic cases would die if left to the unassisted efforts of nature, and not so many by a judicious tonic and stimulating plan. By way of parenthesis, I would say that I think that there is too much importance given to the local treatment of this disease, and a great deal has been written about it. Tr. iodine, nitrate silver, sulph. iron, collodion, etc., etc., each have their advocates, who seem to think that they are of more importance than the constitutional remedies. As it is a constitutional and self-limited disease, I never could con-

ceive that local applications were of much more use than they would be in small pox; and I never could see any other use of tr. iodine and nit. silver but to make the patient look horribly, and impress the vulgar with the terrible nature of the disease.

As to whether inflammations have changed their types in the Maumee and Wabash Valleys within twenty years, I should say, from my observations during the above mentioned period, that if there be any difference they have assumed a more sthenic rather than asthenic character. This will readily be believed by any physician when he is told that intermittent fever, and malarious diseases generally, once so universal here, are now not nearly so common.

Enlargement of the spleen, and its resulting (or accompanying) anemia, dropsies, etc., are now comparatively rare—in short, that typhoid symptoms, in most diseases, supervene at not so early a period as formerly. Perhaps this may be owing partly to the improvement in the treatment; still there can be no doubt that in this part of the State the inhabitants generally are more robust and vigorous than they were twenty years ago. And probably the same may be said of various other parts of the United States, which were once so unhealthy that no one lived to be over twenty-seven years of age, as I read in some old medical book concerning Petersburg in Virginia.

There are now, doubtless, some debilitating and degenerating causes in operation to counterbalance, in some degree, the absence of the malarious influence. The greatest of all these causes is the use of intoxicating drinks, which has been fearfully on the increase for a few years past. Who now does not drink, at least, lager bier? What gentleman (?) that travels does not carry his bottle of brandy? And then what immense numbers of men (and women too) are addicted to the use of opium, tobacco, etc. If these stimulants and narcotics could only be banished from the face of the earth, and venereal diseases be treated in a more rational manner (without mercury), I think there might be some hope that mankind might be partially regenerated (physically). I do not suppose that all the unhallowed passions of men would be banished if intoxicating drinks were disused, but the greatest of all of the excitants of these passions

would be withdrawn. That a great change in the general health of its inhabitants for the better has taken place in the Wabash and Maumee Valleys within twenty years is perfectly obvious. A person visiting the towns in these valleys some years ago, would have seen the exact counterparts of Eden (described by Dickens in Martin Chuzzlewit) in almost all of them. I well recollect many of these Edens, with their paradisical environments and their happy (?) inhabitants.

The usual treatment by the physicians here in pneumonia, up to the time I came here to reside, was, as I said before, by bleeding, tart. emetic, calomel, blistering, etc. The year before I came here this disease—pneumonia—was epidemic, and *all* the first cases, some thirty in number, died, which, of course, created quite a panic. These were treated in the strictest anti-phlogistic way. An opposite course of treatment was then instituted by some practitioners, who had the good sense to see that a course of treatment which resulted so unfavorably must be wrong. By the change in the treatment the patients recovered, and the disease was stripped of its terrors. Since this period, the lancet has been but seldom used here, but a more rational treatment has been pursued.

I know that the epidemic constitution of diseases, as it is called, differs in different epidemics; but I think it would be difficult to show that in any epidemic of an inflammatory or any other disease, an anti-phlogistic treatment would be proper.

When I look back to the old treatment of inflammations (as well as fevers), I am horror struck, and wonder at the prejudice which could have continued so barbarous a practice so long.

And now, to all the old fogies of the blood-letting, mercuralizing, drastic catharticising, blistering, burning, cauterizing, and (universally) overdrugging school, I would recommend to read Sir John Forbes' book "On Nature and Art in the Cure of Disease;" Dr. Bigelow's little book lately published; Professor Bennett's late work, "Clinical Lectures on Medicine,"—and see if these will not somewhat dilute and modify their barbarous practice. And it is to be hoped that we shall all—if we have not already—discard from our minds the preconceived notions that we imbibed from reading the old standard treatises on practice; and then I think that we may have the consolation to think, that if our patients do die, that they, at least, will die *natural* deaths.

ARTICLE III.

AN ENQUIRY, AS TO WHETHER AND HOW "ENEMATA NUTRIENTIÆ" ARE ABSORBED FROM THE RECTUM, SO AS TO PROVE NUTRIENT TO THE SYSTEM.

BY B. WOODWARD, M.D., OF GALESBURG, ILL.

In a late work by Wm. Tully, M.D., on "Materia Medicæ, or Pharmacology," he denies the efficacy of nutrient enemata, and says, "The colon and rectum having no lacteals, the idea of introducing nourishment by them is a perfect chimera."

It sometimes happens that very learned men make very learned mistakes, and it seems to me that this is one of them. The lacteals are, no doubt, the main organs by which the nutrient particles of food are taken up and carried into the circulation, yet there are others acting consentaneously with the lacteals for the attainment of the same end. Though the villi containing the lacteals do not extend below the cæcum, and these lacteals are the *main* organs of absorption from the intestinal canal, there are still the capillary bloodvessels, which, according to our best physiologists, are "equally with the lacteals actively engaged in the process of absorption." See "Carpenter's Human Physiology," p. 134.

How will the Doctor dispose of this theory, sustained as it is by facts? He says absorption cannot be carried on because there are no vessels suited to the process. Had he said that *digestion* could not be carried on in the rectum and colon, I should have been more inclined to agree with him, for digestion is the conversion of food into chyle, and its subsequent absorption; though even in this case it is not certain that the presence of food in the duodenum is necessary for the pancreas to secrete its fluid, any more than it is necessary for the liver, though this condition does seem to be necessary in the case of the stomach; and if these secretions (which seems to me highly probable) are carried into the colon and rectum, they may there so act on nutrient enema as to convert them into chyle and fit them to be taken up by the capillary vessels. It is generally believed that starchy and farinaceous matters need to undergo this process of digestion, though Carpenter, p. 145, holds that this change

is not necessary even for these articles, in order to their absorption. In the case of animal broths, this conversion certainly is not necessary, for the constituents of the flesh are held in perfect solution in the water, leaving little else than what would be excrement in the ordinary process of digestion, to be retained in the intestine. The rest, the gelatine, fibrine, salts, and perhaps even the albumen, are in a fit condition to be taken up by the capillaries of the part. Even granting that they could not be absorbed from the rectum and colon, we have reason to believe, that being deposited in a fluid form, they may be carried by capillary attraction along the walls of the large into the small intestines, and there undergo the change into chyle and be absorbed by the lacteals. It may be said that "the lacteals have open mouths, fitting them for absorbing, which the capillary vessels have not." True, but this is not necessary to maintain the process. It is carried on by endosmose through the walls of the vessels themselves, and the greater part of the nutrient particles held in solution are taken up and carried at once into the circulation. The influence of the capillary vessels is seen even in the skin, and still more so in an abraded surface when medicinal substances are applied to these surfaces; the fact of their absorption being proved by finding their effects upon the system after having been thus applied. That nutrient enemata are absorbed from the rectum, is shown by the fact, that after a certain time they are neither found in the gut nor passed as excrement. With regard to medicinal substances, they are proved to be absorbed from the rectum, by finding not only their appropriate constitutional effects, but also their presence in the urine, which could not be, unless they had fully entered the circulation. We might reason from analogy that the rectum might absorb, by finding, as we do, other organs which are only excretory in their nature, taking on, under certain circumstances, the *absorbent* action. The urethra is one case in point; for it is well known that the most intense narcotism may be produced by the introduction of morphine into the canal. This could only take place through the action of the capillary vessels of the part; and though the action of this agent, as well as many others, is on the nervous

system, it must enter the circulation before it can affect the nervous centres. We believe that menstruation is but a consequence of ovulation, and though the uterus and vagina is the natural course for this secretion, we still find various other parts of the system at times taking on a vicarious action, and for want of action of the uterus, doing its excretory work. If the theory of Dr. Tully is true, how are we to account for the continuation of life, and subsequent recovery of the patient in those cases where food has been introduced in no other way than by enema, for such periods as from ten to seventeen days? and yet such cases are frequently occurring. That it requires a much larger quantity of food introduced in this way, I admit, in order for sustentation to be carried on; but must be allowed to doubt Dr. Tully's theory. Dr. Tully's work will doubtless fall into the hands of many young and inexperienced practitioners. If they adopt his views on this subject, they will refrain from using this (what most physicians find to be a most efficacious) means of supporting their patients in cases where from any cause food cannot be retained on the stomach.

Fully aware that it may look like presumption to endeavor to controvert the views of distinguished men, yet we are bound to exercise our own judgment, based on the best knowledge we can acquire. Dr. Tully claims for himself the right to reject any opinion or theory, no matter from what source it may come, if it does not coincide with his views of truth; and the same liberty must be granted to every member of the profession, or there can be no advance in medical science. Dr. Tully says, very truly, "That an assertion once made can never be got rid of. The writer who first made the assertion will be quoted till doomsday; no correction of such an error can ever rid the profession of it." This is so true that it becomes the duty of every man to examine every question for himself, and take nothing for granted because it emanates from a distinguished source. The Doctor controverts, in this case, what he believes to be a "hoary error," but what, if I mistake not, the profession generally believe to be a "time-honored truth," that the system may be effectively supported by "Enemata Nutrientiæ."

ARTICLE IV.

SURGICAL CASES.

BY C. BRACKETT, OF ROCHESTER, FULTON CO., INDIANA.

Dislocation of Humerus of eleven weeks. — Mrs. Wann, of Tippecanoe, Marshall Co., Indiana, came with her husband to me, February, 1857, with dislocated humerus. At the time of the accident, eleven weeks before, she had a surgeon (?) to see it, who undertook, or supposed he had effected, a reduction. Two or three weeks later, finding the arm still useless, and suffering much, she sent for me. I did not go. Her husband then took her to Laporte, when reduction was again undertaken by two good surgeons, assisted by (I supposed from her description) Jarvis' adjuster. This operation also failed.

Eleven weeks, lacking two days, or seventy-five days after the injury, she came to me and gave a history of the case. Found the head of the humerus down and forward; and as the case had been treated by skillful operators, I called in, to see the case and to assist, Drs. Howes and Gould, of Rochester, and Dr. South, all of Tippecanoe town. I gave chloroform. After seating her in a chair, and using a sheet fastened to a bar across a door for counter extension, made extension from the humerus with two ropes, doubled, and fastened to a strong bar across the opposite door. These ropes were in charge of Drs. Howes and Gould, and were tightened by twisting with a stick, in the manner of tightening the blade of a wood saw. As often as one rope was twisted, the other was drawn taut and twisted, when the slack was taken out of the first and twisting repeated. Thus steady extension (the steadiest that can be applied) was applied for four hours. At the end of this time I had the satisfaction of *knowing* that the head of the bone was right. I kept her arm bandaged, so that, during sleep, it could not be thrown out. At the end of a few months the arm was entirely restored to perfect usefulness.

August 18th, 1858. — J. Swartwout, aged about forty, sent for me. Found him vomiting; in severe pain, whole abdominal region "seemed on fire," as he expressed himself; had intense

burning pain in epigastrium, more particularly. Pulse small, frequent, quick, 130 per minute; hands and feet cold, head and body hot; rejected from the stomach whatever he took; wanted quarts of water. I gave him opium grs. ii., pulv. gum acacia grs. iv., repeated in fifteen minutes; both doses rejected, though but little water taken. Then gave opii gr. i., morph. sul. gr. ss., pulv. liquorice, in very little water; and when he must vomit, as much water as he could take. He rejected two of these doses. Burning pain in stomach not relieved. Then gave opii grs. ii., morph. gr. ss., capsicum grs. iv., with water. Within ten minutes the *burning* pain ceased, vomiting quieted, and sleep restored. Gave occasionally, next day, opium, liquorice, and prepared chalk, in small doses, and directed twenty of the Sappington pills* to be taken, one at a time, at intervals of one hour; and as he was up and about the house, did not see him again. Do physicians, as a general rule, put as much confidence in large doses of opium and active stimulants, in cases of sporadic cholera, or simulated gastritis, as they ought? Do they follow Sydenham's treatment, or add fuel to fire in the commencement of the disease, by cathartics and irritant "alteratives?"

ARTICLE V.

FRACTURES OF THE LOWER JAW.

BY O. C. GIBBS, M.D., FREWSBURG, N. Y.

EDITORS OF THE CHICAGO MEDICAL JOURNAL:

DEAR SIRS—In a recent number of your Journal, Dr. M. O. Heydock reports a fracture of the lower jaw, in which great difficulty was experienced in retaining the fractured parts in apposition. Dr. Heydock concludes his paper with the following remarks: "I believe the skull cap and straps here introduced will be found the best and simplest external appliance for all fractures of the jaw. It does not slip, like the roller, the pressure is distributed, and it can be loosened or tightened

* SAP. PILLS.—℞ Qui. gr. i.; Myrrh, Pulv. Ex. Liquorice, aa, gr. ss.

in a moment, with little or no trouble. It may not be a new idea, yet I do not remember ever having seen it mentioned."

The "skull cap and straps" are not altogether new; I have used them for years. In the February number of the *Buffalo Medical Journal*, for 1858, I reported a case of fracture of the inferior maxilla, which came under treatment in April, 1856, in which report the following language was used: "On examination, the inferior maxilla was found broken in *three* distinct places. The teeth in the upper jaw were entire, and the fragments of the bone were carefully moulded to an exact adaptation to the upper maxilla, with the design of making it subserve the purpose of an efficient splint to hold in place the fragments of the broken bone. In consequence of the great tumefaction, it was thought advisable to depart from the ordinary manner of applying bandages; it was thought that the pressure of the bandages upon the injured side of the face would, in consequence of its swollen condition, displace the fragments of the jaw inward. To prevent this, a splint somewhat of a horse-shoe shape, was fitted to the inferior surface of the fractured bone, projecting sufficiently beyond it on the sides to guard against lateral pressure. The splint was well padded and applied, *and held in place by suitable bandages, strapped to a* CAP OF FIRM CLOTH, *fitted to the head.*" This, in such cases, is a very desirable dressing, and with Dr. Heydock, we can say we believe it the "best and simplest external appliance for fractures of the jaw."

ARTICLE VI.

LIGATION OF THE TIBIALIS ANTICUS ARTERY.

BY A. HEAVENRIDGE, M.D., STILESVILLE, IND.

June 11*th*, 4 *o'clock P. M.*—Called to see E. Bridgwaters, a boy nine years old. Found him with an incised wound, three inches long, in the dorsum of the foot, commencing at the extremity of the metatarsal bone of the great toe, and running parallel with it, dividing the dorsopedalis artery, and some of its communicating branches, and the plantar arteries. The

wound had been received five weeks before, at which time it was dressed by my friend Dr. Gibbons, but the arteries, not being ligated, continued to effuse blood from time to time, until at the time I saw him, when he was completely exsanguine. I dressed the wound in such a way, using compresses and styptics, as to prevent hemorrhage for the time being, until I could procure assistance, intending to ligate.

June 12th, 9 *o'clock A. M.*—Saw the patient in connection with Drs. Matthews and Green. After some deliberation, Dr. Matthews suggested the use of a compress on the dorsum of the foot, a little above the incision, where the artery could be seen pulsating, which was agreed to by Dr. Green and myself, and applied. The foot being swollen at the time, the compress soon became loose, in consequence of the swelling subsiding, and hemorrhage again occurred, after a period of nine days, when I was again summoned to see him in great haste. When I arrived the blood had stopped running, in consequence of a coagulum that had formed in some lint that had been placed around the bleeding orifice. On removing the clot, the hemorrhage was truly alarming. I again applied compresses and styptics, until I could procure assistance to ligate.

June 22d, 9 *o'clock A. M.*—I saw the patient in company with Dr. Green. There had been no bleeding during the night. After putting him under the influence of chloroform, we cut down on and tied the artery. There still remained a small branch of the plantar arteries, communicating with the wound, which conveyed some blood. Not being able to ligate, I cauterized it with nitrate of silver, and dressed the wound, giving the patient a quarter of a grain of the sulphate of morphia before leaving him.

June 24th.—The foot was badly swollen and painful; rested very poorly during succeeding twenty-four hours after operation.

June 28th.—The swelling gone down; wound where the artery was ligated almost filled up; old wound doing well. Constitutional condition good, excepting the extreme anemia.

July 5th.—The foot doing very well. The wounds are almost healed up; appetite good, which had been rather poor before, and at times almost complete anorexia.

July 10*th*.—Wounds completely filled, though tender yet; appetite good, bowels regular. Mucous membranes have resumed a healthy color, whereas they were of a sallow white. The pulse is soft and natural, which was very quick and irritable during his extreme anemia.

The constitutional treatment in this case has been a liberal use of chalybeates, with a small portion of vegetable tonics, and as occasion required, opiates and laxatives. The object that I wish to attain in reporting this case, is not merely to show that the artery was ligated successfully seven weeks after the wound was received, and after the patient was reduced to the very extreme of anemia, but to give my professional brethren, who may read the *Journal*, and are like myself, mere novices in the healing art, a hint of the importance of looking well to the suppression of hemorrhage, before dressing and leaving a wound. Had the arteries been tied when this wound was received, the patient would have been well in half the time, and that, too, without any risk of life.

PROCEEDINGS OF MEDICAL SOCIETIES.

ROCK RIVER UNION MEDICAL SOCIETY.

The annual meeting of this society was held at Dixon, June 9th, 1858. The members assembled at Union Hall.

The President, Dr. A. S. Hudson, of Sterling, called the meeting to order.

The Secretary read the proceedings of the last meeting, which, on motion, were accepted.

The following gentlemen were admitted members of the Society:

Dr. Wynn, of Dixon, proposed by Dr. Abbott;

Dr. Dewitt C. Warner, of Dixon, proposed by Dr. Phillips;

Dr. D. Williams, of Sterling, proposed by Dr. A. S. Hudson.

Treasurer's report read and accepted.

On motion of Dr. N. W. Abbott, each member was assessed fifty cents.

Dr. Abbott, who was appointed at a previous meeting of the Society to make a report upon the "Uses of Veratrum Viride," stated that he had not prepared a written report, but would simply state his views of, and his experience with, the remedy. He believed veratrum viride to be the most potent remedy we possess, for reducing the pulse, in inflammatory and febrile diseases. He gave it in typhoid cases, even where there is a weak pulse, with great debility. He believed all diseases to be diseases of debility—all remedies are stimulants. Veratrum promotes all the secretions—controls the action of the heart by its direct specific effect.

On motion of Dr. G. W. Phillips, Dr. A. T. Hudson, of Lyons, Iowa, was invited to participate in the proceedings of the Society.

The retiring President, Dr. A. S. Hudson, of Sterling, as he was not prepared with a written address, would make the subject of his valedictory, the "Powers and Uses of Veratrum Viride." He had had but little experience in the use of the remedy; was at first disappointed in its effects, although he gave it in inflammatory cases, as to the strength and doses of the tincture, as directed by Dr. Norwood, but failed to control the action of the heart. The cause of not getting the effect, he thought, was the violence of the disease, the dose of the tincture being too small, and probably the variable strength of the article used. Dr. H. remarked that veratrum viride grown at the South is much better and stronger than that grown at the North. The rule which should guide us in administering the remedy, should be its effects, the same as should guide us in giving all remedies; if the effect cannot be produced by a certain dose, given every three hours, give the same every hour or two, or increase the dose. Dr. H. believed the remedy to stand on a par with the lancet; that it controls inflammation by reducing arterial action, if promptly and vigorously given; but ineffectual in typhoid cases, and positively injurious in such cases, attended with great prostration, and a weak, quick pulse. In this connection Dr. H. spoke of puerperal peritonitis; that

in inflammation of the peritonæum, the membrane secretes gas, causing tympanitis, and that this symptom is pathognomonic of disease of that membrane; in inflammation of the proper substance of the uterus, there is no tympanitis, but always if the peritoneal covering of the organ is inflamed. Dr. H. made mention of the treatment of puerperal peritonitis by certain physicians of the city of New York, which is the use of opium and veratrum viride, the opium to relieve the pain and frequent breathing, given in large doses so as to produce narcosis, and the veratrum to control arterial action. He believed that opium not only relieved pain, but exerted a curative effect upon the inflammation.

The subject of Medical Intercourse, which had been discussed at the previous meeting, was introduced by Dr. A. S. Hudson, who contended that our patients should not be informed of the names of the remedies prescribed by the physician; that frequently, through the prejudices of patients against a certain remedy, the physician's prescription is not carried out; that the practice of thus informing our patients, is injurious to them as well as ourselves; that it brings disrespect and dishonor to the profession.

Dr. J. B. Nash made some remarks, sustaining these views. No resolution was offered or adopted upon the subject. In this connection, Dr. A. T. Hudson, of Lyons, made some remarks in regard to disguising the taste of medicines, as the disagreeable taste was frequently the cause of prejudice against remedies. Dr. H. stated that, in Lyons, the physicians were in the habit of giving their medicine in wafers.

To cover the taste of quinine, Dr. J. K. Eberle gives it in liquorice.

Dr. Phillips stated that he was in the habit of giving quinine in strong, hot tea or coffee, or, by adding a little tannin to the quinine, and dissolving it in water; either of which methods covers the taste most effectually.

Remarks were introduced, by Dr. Nash, in regard to the alterative effects of tart. antimony; he had been in the habit of curing enlarged spleen, caused by a long continuance of an

intermittent, by giving the remedy in small doses, continued for a long time.

Dr. Abbott remarked that he never used tart. antimony, except as an emetic; he believed it to be a dangerous remedy for children; he never used it in the pneumonia of young children; and that the only effect he knew of its possessing, except its emetic, was its sedative action upon the circulation.

Dr. Phillips remarked, that tart. antimony had not only an emetic and sedative effect, but a contra-stimulant effect upon the mucous membrane of the stomach and bowels, and that this is its most valuable property, and the most to be relied upon in the treatment of pneumonia. Dr. P. remarked, that he had used the remedy in the pneumonia of young children, even nursing children, without producing bad effects upon the mucous membrane; the reason that physicians found it to produce inflammation of the mucous membrane of the alimentary canal, and probably destroyed their little patients, was that they did not discriminate their cases. Tart. ant. cannot be used in all cases of pneumonia of children; if there be a co-existing inflammation of the mucous membrane, with the pneumonia, the remedy should not be used; but if no complication of this nature exists, it is safe to use tart. antimony. It would not be safe to use tart. ant. in pneumonia, complicated with miasmatic fever, unless the inflammatory element predominated, and the accompanying fever is, in a great degree, symptomatic. Cases of pneumonia are met with, with the physical symptoms of that disease, but with an accompanying fever, that is strictly miasmatic; the use of tart. ant. in a case like this would fail to meet the disease; a very different treatment is required; quinine, in free doses, must be used, to break down the fever, when the local disease will readily yield to the use of mild remedies.

Dr. Geo. W. Hewitt exhibited, before the Society, a patient with tænia, as he supposed; the patient, a man some thirty-five or forty years of age, first felt symptoms of the disease last autumn. The symptoms, at this time, are as follows: The patient has tolerable health; he thinks he is not quite so fleshy as in health; appetite variable; bowels generally regular; the

patient describes his sensations, as of something moving about in the abdomen, sometimes with a rough, dragging feeling, or a sensation of something biting. Dr. H. has given the patient freely of ol. terebinth, to destroy the worm; the patient says the cathartic drives the worm lower down, into a bunch; he thinks he has felt it in the rectum, and he says he can indicate the part of the abdomen in which it lies; he says it is now low down in the right iliac region; upon percussion over this part, a marked dullness is found over the entire region, nearly. The patient, at one time, dosed himself with aloes and whisky; this, he said, caused the worm to pass low down, and "made him very vicious," causing it to move about a great deal; when he has been fasting, he thinks the worm rises to the stomach, causing nausea. Many of the patient's sensations may be magnified. The worm appears to be wadded up, either in the cecum or lower part of the ileum.

Some members expressed their doubt as to its being a tape worm. Dr. A. S. Hudson mentioned the case of a boy, in Michigan, who vomited up a frog; he remembered to have drank at a spring, and the inference was that he swallowed a polliwog.

The treatment advised was, to give cathartic remedies, to pass the worm into the large intestine or rectum, and then to endeavor to hook it out. Another course advised was, to let the patient fast, until the worm rises to the stomach, then to give an emetic of sulphate of zinc.

The Society next proceeded to elect officers.

Dr. J. A. Jackson, of Amboy, was elected *President*,
Dr. Geo. W. Hewitt, of Franklin Grove, *Vice-President*,
Dr. Moses M. Roger, of Sterling, . . *Treasurer*,
Dr. G. W. Phillips, unanimously re-elected *Secretary*.

A suggestion was made by Dr. Phillips, and on motion of Dr. Abbott, adopted, that a Committee be appointed upon Practical Medicine; a schedule of questions made out, and sent to each member of the Society, with a request that each shall make a report to the Committee upon each subject.

On motion, Dr. G. W. Phillips, as Chairman, and Dr. A. S. Hudson, were appointed said Committee. On motion of Dr.

D. Williams, the Committee were authorized to select the schedule.

On motion of Dr. Phillips, Dr. A. S. Hudson was appointed to make a report, at the next semi-annual meeting, upon "The Curative Effects of Opium, in Inflammatory and Febrile Diseases."

On motion of Dr. Nash, Dr. Oliver Everett was appointed to deliver the popular address at the next semi-annual meeting.

On motion, Dr. A. S. Hudson was appointed as delegate to the "American Medical Association."

On motion, Drs. Abbott and Jackson were appointed delegates to the State Medical Society.

On motion of Dr. Abbott, Amboy was selected as the place for the next semi-annual meeting, and Sterling for the annual meeting.

A suggestion was made by Dr. A. T. Hudson, which, on motion of Dr. Abbott, was adopted; that the Secretary confer with other Medical Societies, for the purpose of gaining their co-operation to memorialize the next legislature to so amend the exemption laws, that no class of property shall be exempt against physician's fees.

On motion of Dr. Abbott, the Secretary was authorized to send a copy of the proceedings of this meeting, for publication in the *Chicago Medical Journal.*

On motion, adjourned to 7½ o'clock P.M.

Evening Session.—Dr. Jackson in the chair. Dr. A. S. Hudson delivered the annual Address: subject, "The Correlation of Life and Death."

Adjourned to meet at the semi-annual session, the time of such meeting to be fixed by the President and Secretary; the members to be informed of the time and place by circular.

G. W. PHILLIPS, M.D., *Secretary.*

SHELBY COUNTY MEDICAL SOCIETY.

SHELBYVILLE, December 21st, 1858.

According to previous notices, a meeting was held at the Masonic Hall, in Shelbyville, on the 21st, at 1 o'clock P. M., for the purpose of forming a Medical Society.

On motion, Dr. Wm. Headen was called to the chair, and Dr. L. D. Martin was chosen Secretary.

On motion of E. S. Penwell, Drs. Martin, E. Penwell, and J. W. York, were chosen as a Committee to draft a Constitution for the Society.

The Committee presented the draft of a Constitution, which was adopted, as follows, to wit:

Article I.—This Society shall be known as the SHELBY COUNTY MEDICAL SOCIETY.

Article II.—The officers of this Society shall be a President, Vice-President, Secretary, Treasurer, and Board of Censors, consisting of three persons.

Article III.—The duty of the President shall be to preside at all regular meetings of the Society; and to deliver an address before the Society at its first semi-annual meeting in each year, which address shall be *public.*

Article IV.—The duty of the Vice-President shall be to preside at the meetings of the Society, in the absence of the President; and deliver a public address before the Society at its second meeting in each year.

Article V.—The duty of the Secretary shall be to keep a record of the proceeding of the Society, and prepare the same for publication; also to preserve a copy of all essays which shall be read before the Society.

Article VI.—The duty of the Treasurer shall be to receive all moneys due the Society, and disburse them as per direction of the same.

Article VII.—It shall be the duty of the Board of Censors to examine all applicants for membership, as to qualifications, both professionally and as gentlemen, and duly report the same to the Society.

Article VIII.—The physicians present at the adoption of this Constitution, shall be constituted members of the Society.

Article IX.—This Society shall hold a semi-annual meeting; one on the 13th day of May, and one on the 18th day of November, in each year.

Article X.—Each member shall pay into the treasury, each year, at the first semi-annual meeting, $5, to be used at the discretion of the Society.

Article XI.—It shall be the duty of each member to prepare a paper, upon some subject of interest to the profession, to be read before the Society at each regular meeting.

Article XII.—This Society shall be governed by the code of ethics adopted by the American Medical Association.

Article XIII.—This Constitution may be altered or amended by a vote of the majority of members present at any regular meeting.

The following persons became members, under the provisions of Article VIII. of the Constitution:

Dr. E. S. Penwell,
" Wm. Headen,
" J. W. York,
" L. D. Martin,
Dr. Enos Penwell,
" Eli York,
" Wm. M. Osborn.

On motion, the Society then proceeded to the election of officers for the ensuing year. The election resulted in the choice of the following officers:

President, ...	Dr. Wm. Headen.
Vice-President, . .	" J. W. York.
Secretary, ...	" L. D. Martin.
Treasurer, ...	" E. S. Penwell.
Board of Censors, . .	" Eli York,
	" Penwell,
	" W. Osborn.

On motion, each member was permitted to make choice of a subject upon which to write an essay, to be read at the next regular meeting. The subjects chosen were as follows:

Dysentery, ...	Dr. J. W. York.
Milk-Sickness, ...	" L. D. Martin.
Typhoid Fever, ...	" E. S. Penwell.
Typhoid Pneumonia, . .	" Wm. M. Osborn.
Scarlet Fever, ...	" Eli York.

A motion was then made that the proceedings of the meeting be published in the *Chicago Medical Journal* and *Okaw Patriot*.

On motion, the Society then adjourned to meet in Shelbyville, on the 13th day of May, 1858, at 10 o'clock A. M., the place to be hereafter designated.

WM. HEADEN, M.D., *President*.

L. D. MARTIN, M.D., *Secretary*.

PROCEEDINGS OF THE SECOND MEETING OF THE CHAMPAIGN COUNTY MEDICAL SOCIETY.

At the adjourned meeting of the physicians of Champaign county, Dr. Somers being absent, Dr. C. A. Thompson was called to the chair.

The minutes of the preceding meeting being read, Dr. Swain, Chairman of the Committee on Constitution and By-Laws, submitted a report, which report was accepted, and the committee was discharged. The Constitution and By-Laws were adopted as reported, with some amendments.

The following resolution was offered by Dr. Mills:

Resolved, That the physicians now present are, and do hereby constitute members of the Champaign County Medical Society, upon signing the constitution and paying the fee of membership; which resolution was adopted.

Whereupon the following enrolled and became members of the Society:

The committee on permanent officers for the Society, reported as follows:

President, ...	Dr. S. L. Bearce.
Sen. Vice-President, . .	" R. H. Brown.
Jun. Vice-President, . .	" J. T. Miller.
Recording Secretary, . .	" C. H. Mills.
Cor. Secretary, ...	" A. J. Crain.
Treasurer, ...	" S. K. Page.

Who were elected, upon ballot, to fill the several offices, as reported by committee on officers.

On motion, Dr. Mills and Dr. Crain were appointed to wait upon the President elect to the chair.

The President appointed the following persons a Committee of Arrangements, and *ex officio* Censors: Drs. Mills, Kincaid, C. A. Thompson, Crain, and Swain.

Also the following as a Committee on Finance: Drs. Howard, Miller, and Goodwin.

The President appointed a Committee on Ethics, as follows: Drs. Kincaid, Brown, and Mills.

On motion, the President appointed a committee of three, to report a fee bill, at the next meeting of the Society, as follows: Drs. Swain, Miller, and Crain.

On motion, the President appointed Dr. C. A. Thompson a special committee of one, to write an Essay on Pneumonia, to be read at our next meeting.

On motion, Dr. Mills was selected by the Chair to write an essay upon some subject connected with surgery, and read it at the next meeting of the Society.

Dr. Crain was appointed a special committee to write upon some subject on Theory and Practice, and read at the next meeting.

On motion of Dr. C. A. Thompson, it was *Resolved*, That when we adjourn, we adjourn to meet at Urbana, on the first Friday of March.

Dr. Crain offered the following resolution, which was carried:

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s,

for membership. Also, Dr. Crain that of Dr. Hawes.

On motion of Dr. Miller, it was *Resolved*, That the proceedings of this meeting be handed to the *Urbana Union*, *Our Constitution*, and the *Chicago Medical Journal*, for publication.

On motion of Dr. Kincaid, the meeting adjourned.

S. L. BEARCE, M.D., *President.*

C. H. MILLS, M.D., *Secretary.*

BOOK AND PAMPHLET NOTICES.

A Treatise on Human Physiology; designed for the use of students and practitioners of medicine. By J. C. Dalton, Jr., M.D., Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York; Member of the New York Academy of Medicine; of the New York Pathological Society; of the American Academy of Arts and Sciences, Boston, Mass.; and the Biological Department of the Academy of Natural Sciences, of Philadelphia. With two hundred and fifty-four Illustrations. Philadelphia: Blanchard & Lea. 1859. pp. 608.

Dr. Dalton has given, in the above work, a condensed treatise on human physiology. Though concise, it will be found to present the subject in an inviting and instructive style and form. We like that portion of the work devoted to the elucidation of embryonic development especially well. The illustrations are excellent, and carry the reader through the descriptions of this intricate subject in such an easy manner as to seduce him into a complete reading of it. Students are quite well aware of the exceeding difficulty of getting a knowledge of these processes, as now understood by physiologists, and will be grateful to Dr. Dalton for so greatly facilitating their labors. It is refreshing to look upon the number of new, original and faithful figures of illustration presented us in this volume. Instead of the old, familiar cuts that have descended from Hunter, Munroe, and others of the venerable confraternity of physiological cultivators of the last century, we find two hundred and forty-three new plates, upon which we may *feast* our eyes, and those who have a taste for physiological knowledge, can satiate their appetite for viands of this kind.

Practitioners who have not the time or inclination to wade through the ponderous tomes of Carpenter, can get here a very complete work on physiology, divested of all superfluities, and produced in a very happy and pleasing manner. It may be bought of W. B. Keen, and perhaps others of our bookstores.

The Science and Art of Surgery; being a Treatise on Injuries, Diseases and Operations. By John Erickson, Professor of Surgery and Clinical Surgery in University College, and Surgeon to University College Hospital. An im-

proved American, from the second enlarged and carefully revised London edition. Illustrated by four hundred and seventeen engravings on wood. Philadelphia: Blanchard & Lea. 1859. With about one thousand pages.

This work is written with the spirit and originality characteristic of its author, and has already become a favorite with American surgeons. Its excellencies are so plainly shown in this edition, that they will insure a continuance of its popularity. In looking over its pages for the names and accredited labors of American surgeons, we are struck with the difficulty with which knowledge crosses the Atlantic, against the east winds originated on the European side of the waters. We hope it will not be long that it may be justly considered a misfortune to a scientific man, that he was born in America. The tide of intelligence and science has so nearly encircled the globe, that we think it will not be a great while before the sun of science will rise to the world from our continent; then our medical men will be considered as near the fountain of *all* learning.

A Practical Treatise on the Diseases of Children. By D. Francis Condie, M.D., Fellow of the College of Physicians, Member of the American Medical Association, Member of the American Philosophical Society, etc. Fifth edition, enlarged and revised. Philadelphia: Blanchard & Lea. pp. 762. For sale by W. B. Keen.

We need not speak of the merits of this work. It is, as it deserves to be, in the library of almost every intelligent physician in the West, and our readers are too well aware of its many excellencies to require enlightenment on this matter. It will only be necessary to say to them, that this edition is so much improved, that they will be under the necessity of having it, if they wish to keep up with the times. It has its own peculiar merits, which cannot be supplied or supplanted by other works of the kind.

The Functions of the Cerebellum.—A pamphlet, of nineteen pages, by Dr. E. Andrews, upon this subject, has been laid upon our table. It first appeared among the transactions of the "American Medical Association," at the session in 1858. It is well written, without ornament or display, but a compilation of facts, which fell under the author's observation, from his

own dissections. His theory is, That the median lobe presides over the motor power of the muscles of the inferior extremities; to support which he presents two propositions:

1. In the warm-blooded animals, the median lobe, or vermiform process of the cerebellum, varies in size directly as the bulk and power of the anterior group of muscles.

2. The lateral lobes vary in like manner, as the power of the posterior group of muscles; subject, however, to certain variations hereafter to be mentioned.

As illustrations of his theory, and reasons for his conclusions, he examples the cerebellum of man; the common gull; dolphin, and other animals; demonstrating clearly the connections between his facts and theory. Physiology long since pointed out the cerebellum as the centre of muscular innervation, and experiments prove that the organ may be seriously injured without impairing any vital function except motion. The author of the pamphlet before us does not enter into experimental or pathological evidences, intimating his intention to make those proofs the subject of another report, to be issued hereafter. In the present work he restricted himself to the evidences derived from comparative anatomy. One point of great interest which he brings up, is, that the commonly-received opinion that the cerebellum is simply a *co-ordination* of motion, is utterly without foundation in comparative anatomy. His figures show that the size of the cerebellum has no relation whatever to the number and variety of co-ordinated actions of the animal, but, on the contrary, is directly in proportion to the bulk and power of muscle, and to the amount of intelligence which regulates it, in total disregard of the variety of combinations. In support of this position, the author institutes comparisons between the cat and the seal, the mouse and the bird, etc., showing numerous instances where the animal possessing the smallest cerebellum exercises the greatest co-ordinating capacity.

Dr. A. traces, in the lateral lobes of the cerebellum, a double relation. Its size varies, first, as the muscular power of the posterior extremeties; and secondly, as the development of the hemispheres of the cerebrum; or, in other words, as the grade

of intelligence of the animal. This view is illustrated by several engravings.

The phrenological doctrine, that the cerebellum is the seat of the generative instinct, is passed over without any notice.

ABSTRACTS AND ITEMS.

PREPARED BY THE JUNIOR EDITOR.

Dr. N. B. Benedict, in *N. O. Medical News*, reports a case of successful transfusion, in exhaustion from hemorrhage, in yellow fever. His object seems to have been to relieve the collapsed condition into which his patient had fallen, in consequence of the loss of blood. Is it not probable that transfusion may be used in these blood diseases, with great effect, to alter the character of the circulating mass, to avert deteriorating changes, and induce or promote healthy hematosis? If so, its range of usefulness would be very much expanded.

The Treatment of Burns, in the New York Hospital, consists in plastering the parts affected by the accident with the following paste, viz: Gum Arabic, ℥iii., gum tragacanth, ℥i., water, one pint, molasses ℥ii. It should be applied with a broad camel-hair pencil, once every two hours, until it forms a firm covering. This will require four or five applications. It should be allowed to remain on until it cracks and peels off, when the surface may be treated by the simplest means with success.—*Virginia Medical Journal.*

Dr. Joseph C. Hutchinson, of Brooklyn, and Dr. H. H. Toland, of San Francisco, record several cases of epistaxis hemorrhage, from wounds and other sources, treated in a very satisfactory manner, with a strong solution of persulphate of iron.

Dr. Kersey, of Indiana, in the *Nashville Journal of Med. and Surgery*, says that he gives large doses, say fifteen or twenty grains of act. of lead, with morphia and a little acetic

acid, for strangulated hernia. He uses it in half-drachm doses per rectum for same purposes. He relates a case in which it seemed to exercise a powerful effect. He also uses muriated tincture of iron, undiluted, as an application to diphtheritic inflammation of the mucous membrane of the fauces and throat. It should be applied liberally, with a probang, about every eight hours.

THE FOLLOWING are the deductions of Dr. Vleminkx, of Brussels, on the subject of re-vaccination. He had 1660 cases upon which to base the conclusions. 1st. Re-vaccination of well-vaccinated individuals generally yields very few useful results. 2d. A person who has had small-pox should be more anxious to submit to re-vaccination than one who has been vaccinated. 3d. Re-vaccination succeeds the better the more distant the time of the operation is from the original vaccination, or from an attack of small-pox. 4th. Re-vaccination is useless up to the twenty-fifth year. 5th. From that period up to the thirty-fifth year, re-vaccination yields useful results, upon a certain number of individuals, but the number of the latter is exceedingly small; hence such re-vaccination should not be pressed upon people, though medical men should not altogether discountenance it. 6th. From the thirty-fifth year, re-vaccination becomes really preventive, and, therefore, necessary. 7th. Supposing the operation had failed once, it is no reason for not trying again, sometime afterward, as nothing proves that receptivity has not returned between the first and the subsequent operation. 8th. The re-vaccination of school-boys or girls is useless. 9th. Re-vaccination in armies organized like the Belgian (young soldiers) is also useless.—*Lancet*, from *Nashville Journal.*

CHLOROFORM IN DELIRIUM TREMENS.—Chloroform will sometimes allay the obstreperous restlessness of delirium tremens, and procure calm sleep when almost everything else fails us. We may cause our patients to inhale it with strong hopes of success.

DR. MARSHALL HALL'S new method of operating for stone in the bladder, is described as follows: He says, I propose to

replace lithotomy and lithotrity by lithomy. 1st. Before the operation is performed, the patient should be made to drink copiously. 2d. A catheter, pierced with one hole only, should be introduced, and so placed as constantly to leave in the bladder such a quantity of urine as seems desirable. 3d. A canula, supplied with a sharp point, should be thrust into the bladder above the os pubis and below the peritonæum. 4th. The point (or stillet.—Ed.) is to be withdrawn and the canula left, closed by a little stop-cock, until a fistula, thoroughly surrounded by lymph, be well established. 5th. This fistula should then be properly dilated until the calculus can be extracted. 6th. The fistula is afterward allowed gradually to contract, on an india-rubber tube, distended with air to a proper size, which is gradually to diminish in calibre by the air being made to escape. In the whole course of this operation no artery is divided; no blood flows; and the nervous system experiences no shock. A measure new in surgery is thus employed, viz: dilatation instead of division of textures. This measure, when well conducted, is not dangerous to the patient, and offers no difficulty to the operation. It may be also applied to other circumstances, such as hydropericardium, empyema, and to replace tracheotomy.—*London Lancet.*

Dr. Richard Bright, who has given his name to the peculiar disease of the kidney known as Bright's disease, is dead. Drs. Lever and William Cruikshanks, both of whose names are quite familiar to American students, have likewise recently departed this life.—*London Lancet.*

EXTRACTS.

A SUCCESSFUL CASE OF TRANSFUSION IN YELLOW FEVER.

To be the means of saving the life of a fellow-being evidently sinking into the grave—to do this by the application of principles of treatment essentially new in the particular disease sub-

jected to treatment, and especially by the application of these principles to save the life of one who is as dear to the practitioner as his own life, is the very culmination of the ambition of the conscientious physician. Such has been the happy distinction attained by our friend, Dr. N. B. Benedict, of New Orleans, in a case published in the January number of the *New Orleans Medical News and Hospital Gazette.*

The epidemic of yellow fever which prevailed in New Orleans the past summer, was unusually fatal. Dr. B. had four cases of the disease in his own family, and it seemed as if one of them certainly had been marked by death as its victim; but a timely resort to transfusion called the patient back to life again, and, we hope, *established* a new principle in the treatment, not only of yellow fever, but of other diseases where death seems to be inevitable from exhausting discharges.

The case, in brief, is as follows: Miss J. B., who had resided for nine years in Mississippi, and for four years in New Orleans, had suffered from no serious illness for fourteen years. On the 11th of October last, she was exposed to a drenching rain, and at 9 o'clock P. M., of the following day, was seized with a violent chill. The symptoms of yellow fever could not have been more characteristic than in this case, and it proved to be unusually obstinate during the first stage. On the third day Dr. C. B. White was called in, and on the fifth day Dr. Wm. E. Kennedy was added to the consultation. Hemorrhage from the mouth began on the fifth day and gradually increased, until, on the night of the eighth day, the blood, diluted with the saliva, saturated two sheets, so that no part of them remained unsoiled. A hemorrhagic tendency was also manifested at this time by other mucous surfaces besides those of the mouth. From the close of the ninth day, the hemorrhage began to diminish, and entirely ceased on the night of the tenth; but the complexion was much blanched, and the mental condition was that of utter despair as to recovery. The rate of the pulse was steadily accelerated, the average for the seventh day being 98, for the eighth and ninth days 104, for the tenth day 115, and for the eleventh and twelfth days 120.

The tenth, eleventh and twelfth days were characterized by

morbid nervous sensations, and mental vagaries. About noon of the thirteenth day, she was suddenly seized with vomiting, which continued throughout the day and the following night, nothing being retained by the stomach but a very little brandy; injections of beef-tea, brandy, and carbonate of ammonia were not retained; the sinking and prostration were excessive, and the bellows sound characteristic of anæmia was heard over the whole region of the aorta. At every movement of the body, distressing hiccough occurred, convulsing the whole frame, and lasting, on each occasion, about a minute. On the morning of the fourteenth day, a stimulating enema was followed by a discharge resembling coffee grounds, the mortal restlessness increased, the pulse became the merest flutter, and was much of the time inappreciable, and its number could not be ascertained.

On that day, at the morning consultation, Drs. Kennedy and White declared their conviction that the patient could not possibly survive for more than three or four hours. At this juncture Dr. B. said:

"It is an old saying that 'drowning men catch at straws.' For the past twenty-four hours I have been in torture with the thought of such a straw, and I cannot refrain from naming it: I mean transfusion. These fatal symptoms being occasioned by the loss of the last few ounces of blood, I cannot persuade myself that it is not a serious duty to inject into her veins a few ounces of fresh, healthy, living blood, as nearly as possible identical with that which she has lost."

The suggestion was promptly embraced, as the only thing that could possibly save life, and Dr. B. fortunately possessing an instrument for the purpose, it was immediately carried into execution with the aid of Drs. C. C. Beard, D. W. Brickell, and L. Greenleaf. Dr. B. describes the operation as follows:

"The apparatus was examined, its use described and illustrated, and every part of the process was fully explained and discussed. The task of preparing the vein was undertaken by Prof. C. C. Beard. An incision about two inches in length was made over the median vein in the left arm. A director was passed beneath the vessel, near the lower part of the incision, in order that it might be held under perfect control, and the loss of any blood from its distal extremity be prevented. An incision was then made into the vein, immediately beyond the

director, to receive the beak of the syringe. It is due to Prof. Beard to say that nothing could exceed the skill and steadiness with which this operation was performed. The blood was obtained, by the assistance of Dr. Greenleaf, from the arm of a young gentleman who exhibits a remarkable example of perfect health, and who had experienced yellow fever during the epidemic of 1853.

"It was my purpose to use the apparatus myself; but as the moment approached, my near relationship to the patient made me distrust my firmness, and I requested Prof. Brickell to take my place. He consented to do so, but substituted for the syringe belonging to the apparatus one of simpler construction, into the beak of which he absorbed the blood as it flowed into the receiver of the transfuser. By inverting the syringe and pushing upward the piston, the last bubble of air was expelled. The beak was then introduced, by Dr. White, into the orifice of the exposed vein of the patient, and Prof. Brickell, with consummate care, passed the blood into her arm, before it had time to cool, or even to repose for more than a few seconds. All the apparatus employed was immersed in warm water, or wrapped with heated cloths, so as to prevent any reduction of the temperature of the transfused blood. The operation was commenced at a few minutes before 1 o'clock, and was finished safely and satisfactorily, in all respects, a few minutes past that hour."

Dr. B. concludes the account as follows:

"I will merely add to this statement that the pulse, which, at half-past 12, under the influence of mental excitement, became once more appreciable, numbered 136, and immediately before the operation 125; at its termination it was 120; and three hours later it remained the same, but had acquired more fulness and strength. The voice recovered its natural tone, the face acquired color, the extremities grew warm, all nausea and hiccough ceased, and ordinary drinks were perfectly retained. From the time mentioned to the present hour, her recovery has been uninterrupted. Her health has long since ceased to be a subject of any anxiety.

"It was not doubted, at the time of the operation, that the quantity of blood injected was equal to three and a half ounces. It was afterwards ascertained, by accurate measurement of the syringe, that its capacity was not quite equal to two and a half ounces. Small as the quantity was, it yet sufficed to turn the scale in her favor.

* * * "Were the true nature and the statistical results of the operation of transfusion generally known, its performance

would be demanded in many cases which are now consigned to a remediless doom. There is no fear that it will ever come to be employed as one of the common remedies. It is applicable to no pathological condition save that which is commonly called 'collapse,' induced by hemorrhage, by certain exhausting discharges, or by utter inabiltiy to receive or retain nutriment; and the only transfusion now sanctioned, either by physiology or by common sense, is that of *human venous blood into human veins, identical, as nearly as possible, with that which has been lost, and with quantity just sufficient to arrest the tendency toward death.* Prior to the year 1853, the total number of recorded cases, practiced under these conditions and restrictions, amounted to twenty-one. Of these but two died—or less than one case in ten!

"If I have any merit in this affair, it is that I have been, for many years, the earnest advocate of transfusion, in those cases where alone it is proper; that I have labored to make it binding on the consciences of medical men to practice transfusion whenever it is justifiable; that I have approved my faith in it by submitting to it, as the first instance which I am apprised of in America, a person whose life is as dear to me as my own; and that before it was attempted I seriously declared to those professional friends, heretofore named, my willingness to take upon myself all the odium that might attach to a failure. I feel that I can never sufficiently thank those gentlemen for what they did for me in this the bitterest trial of my life; and that they have thus laid upon me new obligations of fidelity to the principles of our noble profession."

We have reported this case at considerable length, because we regard it as of great importance in bringing to bear an essentially new and very powerful agent in the treatment of disease, and we cannot close without congratulating our friend, in view particularly of his relationship to the patient, on the glorious result attained.—*Med. and Surgical Reporter.*

TRANSLATIONS FROM RECENT EUROPEAN JOURNALS.—BY T. A. DEMME, M.D.

EFFECTS OF THE PREPARATIONS OF LEAD UPON THE INFERIOR ANIMALS.

A M. Pecart-Taschereau, a litharge manufacturer, (*Deutsche Klinik*), has investigated with some care the effects of the preparations of lead upon the inferior animals. Strange as it

may seem, he soon noticed that the *Dog* is never affected with symptoms of lead poisoning. He has seen this animal roll in litharge and white lead, and afterward lick itself clean, but no evil consequences ever attracted his attention.

The Cat, on the contrary, is soon killed. This animal dies in convulsions, not only in establishments where litharge and white lead are prepared, but even in those places where minute quantities of lead chance to be present, in the compositor's rooms, and where newly-printed books have been stored. New ink, it is well known, always contains a certain quantity of this metal.

M. P-T. tried a very decisive experiment. He hung several cages, in each of which a cat was confined, in his factory, and in a short time, one after another, all died.

Mice—and the lead manufactories are infested by them—play in the litharge and white lead without any apparent evil consequences.

M. Rouart, white lead manufacturer in Clichy, remarks that *Rats*, which multiply most rapidly in his establishment, are very apt to suffer from paralysis of the lower extremities.

The Horse, exposed to the poisonous atmosphere of lead factories, appears to be liable to a paralysis of the muscles of the larynx. The recurrent laryngeal nerve (which conveys the motory impulses to the muscles of the larynx) appears unable to perform its proper functions, whilst the remainder of the pneumogastric nerve is totally unaffected.

The veterinary surgeon, Delanay, has performed, in these cases, tracheotomy, with the result of preserving the valuable animal, notwithstanding the local paralysis.

Birds soon succumb to the poison.

It has been observed that *sheep* and *goats* that feed near lead factories frequently suffer from hæmularia, and are also liable to miscarry.

It is also asserted that in such neighborhoods women are peculiarly apt to have premature labor.

LEAD IN PHTHISIS.

According to Brockmann, no workman in lead suffers from phthisis pulmonalis, even if there is hereditary predisposition and phthisical conformation of the chest.

Is not this an indication for the use of the preparations of lead in consumption of the lungs?

Saccharum saturna (plumbi acetas) has been used in pneumonia, and pituitous catarrh, with good effects, and in the last stages of phthisis pulmonalis, it has not seldom been given as the ultimum solanum.

The properties of the lead salts are precisely those that are indicated in these cases—antiphlogistic, astringent and sedative. In consequence of these properties, lead has been called the narcoticum metallicum.—*Med. and Surgical Reporter.*

PROCEEDINGS OF THE NASHVILLE MEDICAL SOCIETY.

President A. H. Buchanan made a verbal report of interest and importance. He was lately called to see Mr. E., of this city, who had a violent bleeding of the nose, which alarmed him in no small degree, as his father had once nearly bled to death from the same cause. All the known remedies were had recourse to, but without avail. The Doctor then attempted compression. He was not aware that his remedy was a new one, but not knowing what to do in the case, and while reflecting on the matter, it appeared to him that he might stay this bleeding by simple compression. Sitting then before his patient, he put his thumb and finger on the carotid artery of the right side, and compressed it against the transverse processes of the cervical vertebræ. This stopped the bleeding almost in a moment. Twenty-five hours subsequently, it recommenced; the same practice was followed, and with the same immediate beneficial results. Since this the bleeding has not recurred. He therefore recommended compression of the carotid artery as a remedy for epistaxis.

The Doctor mentioned, also, two instances in which he had

saved the lives of women by using compression. This was not original, as he had gained the idea from reading in a medical journal, he forgot which. In one case the woman was in parturition, the child was already born and hanging by the cord; the hemorrhage was awful; she was entirely exhausted, pale, almost dead. He relieved her of the placenta, and carrying up the finger, pressed the aorta, immediately above the bifurcation, against the spine, and the bleeding ceased readily, while an assistant swathed the legs in bandages.

Dr. J. F. May stated that he had once compressed the internal jugular vein, in a case in which the vein had been opened. A large, fibrous tumor was being dissected out, when numerous, deep adhesions in the substance of the neck were detected. Some of these were attached to the vein, and on traction being exercised the coat of the vein gave way. The hemorrhage was terrific. He compressed the vein at once against the processes of the vertebræ, and as the tumor was only two-thirds out, and he had not time to dissect it, he tore it out. Dr. Coolidge, of the U. S. N., assisted him in the operation, and kept the patient two hours and a half on the table, and by brandy, friction and blisters restored him. The vein was tied, and the man recovered, so that, in a fortnight after, the Doctor removed another tumor from the same subject. The cases on record of tying this vein are very few in number. Dr. Mott, of New York, reported a case some years ago, the first on record, he calls it; but Dr. May claims that his case preceded Dr. Mott's by several weeks. —*Nashville Journal.*

EDITORIAL.

ANNUAL COMMENCEMENT.

The Sixteenth Annual Commencement of Rush Medical College, took place on Wednesday afternoon, the 16th of February, in the hall of the College. The hall was well filled with an intelligent audience, and the exercises were varied and interesting.

After a prayer by the Rev. Mr. Schenck, Mr. Benj. W. Bristow, one of the candidates for graduation, read his Thesis on the Qualifications of the Physician. The degree of Doctor of Medicine was then conferred on thirty-one members of the class. Three awards, each consisting of a valuable medical work, were then distributed as follows: 1st, to Wm. E. Peters, for having sustained the best examination in the several departments. 2d, to John W. W. Lawrence, for the best Inaugural Thesis. 3d, to L. G. Armstrong, for the best examination in surgery. An able and eloquent Valedictory Address was then delivered by Prof. D. Brainard; and the public exercises were closed with a benediction.

After the audience had retired, the graduates and members of the college class, with the faculty and invited guests, repaired to an adjoining room, and spent a couple of hours around the festive board, in the highest degree of social and intellectual enjoyment.

The following are the names of the Graduates, viz:

Wm. L. Kreider,
John A. Cook,
L. G. Armstrong,
Richard Hull,
Geo. W. Corey,
John W. W. Lawrence,
E. Livingston Welling,
Myron Underwood,
Richard McGee,
R. F. Williams,
Benj. W. Bristow,
A. B. Taylor,
J. H. Wiley,
J. R. Conklin,
E. A. Steele,
Wm. C. Hopwood,
J. F. Williams,
Blexton Harris,
J. R. Pearce,
E. H. Ayres,
John H. Frizell,
N. M. Douthett,
W. H. Lyford,
Lafayette Lake,
A. M. Blackman,
Wm. E. Peters,
F. Mason,
P. R. Slingsby,
Sam'l McNair,
E. C. Dickinson,
E. O. F. Roler.

The honorary degree of M.D. was conferred on Dr. S. M. Mitchell, of Illinois; and the *ad-cundem* degree on J. Drake Harpur, of Springfield, Ill.

"By the medical faculty of the University, all candidates for the degree of M.D. *are rigidly required to comply with the conditions of the National Medical Association*, except attendance upon hospital cliniques."

Here we are told, not in a college circular, nor in a partisan medical journal, but on the floor of the great American Medical Association, and in the presence of five hundred delegates, representing nearly all the States of the Union, that "all candidates, etc., are *rigidly* required to comply with the conditions of the National Medical Association," with the single exception named. The exact "*conditions*" recommended by the National Association on the subject of preliminary education, we quoted in an editorial in the last (January) number of *Journal*. Let the reader compare the resolutions there quoted from the transactions of the Association with the statement here quoted from the report of Dr. Pitcher, and ask himself whether the inference is not plain and positive, that the University of Michigan required a standard of preliminary education for the admission of those who intended to become candidates for graduation? Would any live man have imagined that the "*rigidly required to comply*," etc., only meant that the candidates were required, during the *second* course of lectures, to write six or seven essays on medical subjects, instead of one, as in other colleges? We do not believe Dr. Pitcher meant to deceive by his statement. On the contrary, we believe he expected a standard of preliminary requirements was to be actually exacted; and that he has since used his influence honestly to have the University carry into practical effect all that he represented in his report. But he has been wholly overruled by the active members of the Medical Faculty, and all the pretensions on this subject, according to Dr. Palmer's own showing, have had no other practical reality than the exaction of several short essays from the candidates for graduation during the last course of lectures. We have called the attention of our readers to this subject, both in the present and preceding numbers of the *Journal*, not from any desire to criticise unnecessarily the doings of our neighbors in the Peninsular State, but for the purpose of directing the attention of our readers to the general subject of preliminary

education for medical men, and the true nature of the recommendations of the National Association on the subject.

It will be seen by the resolutions quoted in the January number, that individual members of the profession, in their capacity of private preceptors, are expected to take the first and most important step in relation to this matter. It is by the private preceptor, and not the college, that students are actually introduced into the profession. And hence, whatever preliminary education is necessary to qualify a young man to enter upon strictly medical studies with propriety, should certainly be exacted when he first makes application for admission into the practitioner's office as a student of medicine. And this is precisely what the National Association has recommended, repeatedly, and with much unanimity.

We hope the members of the Illinois State Medical Society will reflect on this subject, and be prepared to take definite action on it at the annual meeting on the first Tuesday in June next. If the State Society will take such action as will require all its members to ascertain, and certify to, the preliminary education of all who may apply for admission into their offices as students, the same thing will speedily be done by all the more local societies; and thus a firm and practical foundation will be laid for the most important improvement in the character of the profession of which it is susceptible.

AMERICAN MEDICAL ASSOCIATION.

The twelfth Annual Meeting of this Association will be held in Louisville, Kentucky, on Tuesday, May 3d, 1859. The secretaries of all societies, and other bodies entitled to representation in the Association, are requested to forward to the Secretary, S. M. Bemiss, at Louisville, correct lists of their delegations so soon as they may be appointed. The Convention of Teachers, invoked by a resolution of the National Association, for the purpose of a general conference as to the best means of elevating the standard of Medical Education in this country, will meet in the same city on Monday, the 2d of May.

Medical Journals throughout the United States are requested to insert the above.

S. M. BEMISS, M.D., *Sec. Am. Med. Assoc'n.*

By the above official notice, our readers will be warned that the next annual meeting of the American Medical Association is near at hand.

We trust that the profession of Illinois and the whole Northwest will be well represented. Let every state and local society see that delegates are appointed, and their credentials furnished them in season. Louisville is easy of access, and we are sure that the local committee of arrangements will spare no pains to render the meeting both pleasant and profitable. It will be observed that on Monday preceding the day for the meeting of the Association, a Convention of Delegates from Medical Colleges is called, for adopting some means for improving the system of college instruction. One year ago, when this subject was in the hands of a special committee of the Association, we gave our views fully and freely, through the medium of this Journal. Those views remain unchanged; and any who may wish to refer to them will be able to do so, by consulting the *Chicago Medical Journal* for March, 1858. At that time we took occasion to consult many of the most eminent men connected with the medical colleges in different parts of the country, and were happy to find that their views corresponded closely with their own.

The only objections urged against adopting the proposed plan, was the want of concert among the schools, and the radical character of the changes. The first of these objections is a real obstacle in the way of any change. But we hope there may be a sufficient representation from the colleges in the proposed convention, and sufficient unity of purpose, to overcome this. The second objection should be allowed no influence whatever; simply because the errors and defects of the present system of medical college instruction are *radical* and inherent, and consequently cannot be removed without changes equally radical. Again, it would require no more concert of action and no more advertising to effect a thorough change, than it would a slight or inefficient one. The defects of our present system arise from the attempt to crowd upon the student's mind too many lectures the same day; to include the whole field of medical science in a single term of too limited a duration; and

the absence of any natural order of succession in the presentation of the different branches.

No change will remedy these defects, which does not, at least, double the length of the annual college term, and divide it into two parts, with a corresponding division of the several branches, as fully set forth in the number of this Journal already alluded to. It would be better to do nothing than to adopt any mere temporizing expedients, which, when fully carried out, would still fail to remedy any of the important evils belonging to the present system.

RESIGNATION.

Prof. H. A. Johnson has resigned the chair of Physiology and Pathology in Rush Medical College. Prof. J. was an able and interesting lecturer; always highly esteemed by the classes attending the college; and his resignation has been received with much regret by his colleagues in the faculty.

CORRESPONDENCE.

MENDOTA, ILL., Feb. 24, 1859.

Dr. N. S. DAVIS—

DEAR SIR: I have had a case, for more than two years, which, I apprehend, is of more than ordinary importance; and to make a correct diagnosis of which, to me, is a matter of great difficulty. I will, as briefly as possible, give you a sketch of the case, and shall thankfully receive any light which you may kindly give me in regard to it.

Feb. 21*st*, 1857.—Was called to see Mrs. G., aet. 30. Supposed herself to be in her third pregnancy. Had ceased to menstruate Oct. 27, 1856. Had had symptoms similar to those of her previous pregnancies—cessation of courses, morning sickness, swelling, soreness and secretion in breasts. The day previously to my being called, had exerted herself rather more than usual; this morning had pretty severe periodical pains in lower part of bowels, with some hemorrhage; this becoming

worse, I was called. From a history of her case and present condition, was at once led to think that she was pregnant, and threatened with a miscarriage. Resorted to the ordinary treatment in such cases, and in the course of 48 hours the flowing had entirely ceased, but still some pain, which continued more or less for four or five days. As she is a woman of a rather delicate organization and highly excitable nervous temperament, rest was advised, and the horizontal posture as much as possible. At the expiration of the four months, she thought she felt motion, or the quickening, and declared that she felt more or less movement, which was also affirmed by her husband; the movement being quite distinct, though not so strong as had been in her previous pregnancies. Up to July 26th, which would make the nine months, the abdomen gradually and uniformly enlarged, and at the expiration of that time was about the usual size of a woman of her developments at full term.

July 26th.—In my absence, another physician was called to see her, as she supposed herself to be in labor. Had considerable show, and frequent, severe pains. He was soon convinced that she was not in actual labor, and administered an anodyne; the pains soon subsiding.

She ran along then, without changing in size, feeling no movement, but suffering from pains, which she compared to the pains of the first stage of labor, occasionally, but most severely at the expiration of every month. Her general health improved, and she was able to take charge of her domestic affairs.

In Sept., 1857, the catamenia returned, and she has been perfectly regular ever since. The case did not then receive any especial attention from me until Jan. 31, 1858. Mr. and Mrs. G. becoming still more uneasy as to her condition, I was requested to call, and, if possible, to give a positive opinion as to the nature of the case. I would here remark, that up to the expiration of the nine months, I had scarcely any suspicion whatever but that the case was one of ordinary pregnancy; and as the case still did not terminate up to the 1st of October, I thought that possibly there was some miscalculation. After

that time, the case became one of peculiar interest, the conviction becoming stronger and stronger that she could not be pregnant. Now of her condition Jan. 31, 1858:

Looked very well; countenance cheerful; in usual flesh; appetite very good, bowels regular, menstruates every month. Does not suffer as much at those times as she formerly did; occasionally has some pain in the lower part of her bowels—more at nights. The enlargement of abdomen uniform; no change in size. Nothing revealed by stethoscopic examination. Could get the outlines of the uterus distinctly; fundus rather more to left side than right; no unusual sensitiveness on either pressure or palpation; quite firm; change of position of body does not change position of tumor. Dull sound on percussion, no fluctuation.

Examination per vaginum.—Could very easily reach the body of the womb anteriorly; rested very low in the pelvis. Os uteri central in vagina, with probably one inch of cervix projecting into vagina; quite smooth, but very firm; the body and all of the cervix, excepting as much as referred to, uniformly developed.

Os uteri very small; could not introduce tip of index finger. Could not, by pressure, and with one hand applied to the abdomen, elevate the uterus.

Feb. 16*th*, 1859.—No perceptible change in her condition in any respect, since Jan. 31, 1858. Would see her occasionally, and learn that she "was quite smart"—as well as when in her best health. For the last two weeks has been suffering considerably with pain over the cotyloid cavity, and for several nights extremely with pains resembling first stage labor pains. Re-examined the case carefully; no change in size since last examination. Digital examination—os easily reached; directed rather backward, small and contracted; the tumor firmly fixed in the pelvis. Digital examination per rectum, and vaginal examination with speculum—nothing revealed worth noting. The difficulty must be intra-uterine, or involving the whole uterine parieties. To take anodynes pro re nata.

Feb. 23.—During the last week, when suffering severe con-

tractile pains of the uterus, there has been, at several times, a slight escape of fluid from the os, probably a half ounce at a time.

From all the information I have been able to gain, by consulting authors and physicians, I must regard this as rather an unique case. I have briefly but accurately stated all the important particulars of the case. The sequela alone will determine what the *trouble* is. But I assure you, that if you, or any to whom you may refer, can give me any light in regard to the case, it will be thankfully received. Am I right in pursuing the let-alone course? Or would I be justified in introducing an exploratory instrument through the os, and, if possible, puncture the uterine contents, if such there be. I shall be glad to hear from you at your earliest opportunity. The case will be worth reporting, when it terminates, and if you should not consider it premature, the preceding notes are at your disposal for the *Journal.* I am yours truly,

E. P. COOK.

HAMPDEN, *Rock Island Co., Ill.*

PROF. N. S. DAVIS—

DEAR SIR: In the August number of your Journal, you request the readers thereof residing in the country districts, to favor you with an account of the special characteristics of fevers prevalent in those districts.

Throughout this section of country, fevers, as presented to my observation and attention thus far, this fall, have assumed a more aggravated type than has ever before been known. A striking characteristic seems to be the apparent tenacity in the diseases, not yielding so readily to remedial measures as in former seasons. Other features are presented in the complication with organic diseases of various organs—the typhus and typhoid conditions supervening upon the mildest remittents and intermittents; the unusual prevalence of fevers of a quotidian type, presenting what is commonly termed congestive, but more properly pernicious, symptoms; hepatic derangements to a great

extent; dysentery; diarrhœa; profuse and unnatural diaphoresis; greatp rostration after the febrile spasm was spent—constituted the principal peculiarities of fevers prevalent during August and September.

In two cases in which the tuberculous diathesis was present, the vital activity was so much lowered, that death ensued in a few hours, in consequence of the complete disintegration of the lung tissue, rapidly filling up the air passages, and causing strangulation, the patients being unable to expectorate the disorganized matter as fast as it formed. Another case, presenting the same diathesis, was taken down with fever of a remittent type, followed by great prostration, whom I kept supported by alcoholic stimulants for two or three weeks. The patient recovered without presenting any symptoms of advancement of the tuberculous disease, not having even so much as a cough. Query—would not the same treatment have saved the lives of the other two? I am somewhat inclined to think that it would. I merely state these facts without entering into any speculations in regard to the use of alcoholic stimulants in phthisis. Much has been said and written upon the subject, but I am inclined to believe that much less has been done in the way of trial. I would like to hear the experience of your many readers upon the subject.

J. R. HAYES.

NOSTRUM VENDERS.

Hope Dale, Illinois.

Eds. Chicago Medical Journal:

It is to me a matter of much regret, that in the popular and wealthy county of Tazewell, represented as it is by so many intelligent members of our profession, there is not, nor to my knowledge has there been, an association for the mutual improvement, regulation, and intercourse of the members of the medical profession: Nor does it seem an easy matter to bring physicians, who have been practicing for many years, to an appreciation of

the great importance of, and the many benefits arising from, local organization, *here*. In extenuation of myself, I would say, that I have urged this matter, time and again, to the consideration of the profession in my vicinity, but without avail. In short, I have done everything consistent for one of my age and influence, to bring about this desired object. Now, what is the reason of this apathy on our part? What is it that so like a narcotic drug allays our sensibilities, and invites to rest every attention to our interests but those of *lucre*, to every care for mental and professional advancement, and to the proper elevation and maintenance of the importance and dignity of our most noble profession? What is it that causes our profession, in this community, to maintain so long a profound silence on this important and vital subject? What is it that keeps its members in the old routine, maintaining the principle of "let every man take care of himself?" Can it be indolence and lack of care for the interests of the profession? The true physician is ever active and awake to the duties he owes to himself and his profession. Can it be that many of those to whom we would look as pioneers in this enterprise, fear the exposition of the extent of their qualifications, which associations would likely induce? I hope not. Can it be that there are too few readers of the *Chicago Medical Journal* in our county? Can it be that jealousy, caused by opposition to each other in practice, or the attention paid to the recent play of Bowie knives on the ribs of each other (of two of the profession amongst us) has usurped the place of interest in other and more honorable things? Or can it be, Messrs. Editors, that many of those to whom, from their age and experience and intelligence, we are expected to look as proper lights in our profession in this county, are to-day, and for some time past have been, engaged in the reprehensible and dirty work of selling and dispensing *patent nostrums?* Please send the readers of the *Journal* your opinion of these things—of this one in particular: Whether physicians, with diplomas from respectable medical colleges, who vend and sell secret or patent medicines, on commissions or otherwise, should be considered as holding an honorable position in a profession one of whose tenets is to

discard all connection with illegitimate medicine, and especially all sympathy with venders of *quack nostrums* and patent remedies?

Please accept the within remittance as your dues for the present volume of the *Journal;* and if the above imperfect, and mayhap rather harsh, exposition of some things that do exist in this community, would be read and found to fit the case of any person or persons claiming to be physicians, and who are living on the proceeds of the sale of quack nostrums; and if in your judgment it deserves a place in your columns, please publish the same. P. W. HILL, M.D.

APPOINTMENTS IN MEDICAL SCHOOLS.

Dr. A. G. Thomas has been appointed Professor of Physiology in the Oglethorpe Medical College, Georgia.

Dr. John C. Draper has been appointed to the Professorship of Analytical and Practical Chemistry in the University of New York.—*N. American Medico-Chirurgical Review.*

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By M. VOGEL,

Chicago, July, 1858. CUPPER AND LEECHER.

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Aconitine.....in bulk
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Atropine .....in bulk
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" .....Bottles of 100 Granules
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" .....Bottles of 100 Granules
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" .....Bottles of 100 Granules

Granules 1-5 *of a grain each.*

Tartar Emetic.....in bulk
" .....Bottles of 100 Granules
Codeine.....in bulk
" .....Bottles of 50 granules
Conicine.....in bulk
" .....Bottles of 100 Granules
Extract of Belladonna.....in bulk
" " Bottles of 100 Granules
" and Powder of Belladonna.....in bulk
" " " Bottles of 100 Granules
" Hyoscyamus .....in bulk
" " Bottles of 100 Granules
" Ipecac.....in bulk
" ".....Bottles of 100 Granules
" Opium.....in bulk
" " .....Bottles of 100 Granules
Proto-Iodide of Mercury.....in bulk
" " Bottles of 100 Granules
Colchicum (each granule is equal to 2 drops of Tinc.).....in bulk
" " " Bot. of 100 Granules

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Ext. of Ipecac, 3-50 gr. equal to ¼ grain pow .....in bulk
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" " " Bottles of 130 Dragees
" " Vallet's formula .....in bulk
" " " Bot. of 130 Dragees
Carbonate of Manganese and Iron.....in bulk
" " " Bot. of 130 Dragees
Kermes, 1-5 grain.....in bulk
" " .....Boxes of 80 Dragees
Santonine, ½ grain .....in bulk
" " .....Boxes of 40 Dragees
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Magnesia and Rhuburb, 1 gr. of each...in bulk
" "Bottles of 130 Dragees

Dragees in bulk, come out in bottles of 500 each, unless ordered otherwise.

Dragees of U. S. P.

Aloes and Myrrh, 4 grains.....in bulk
Compound Cathartic, 3 grains..... "
Aloetic, 4 grains..... "
Assafœtida, 4 grains..... "
Aloes and Assafœtida, 4 grains..... "
Dinner Pills, Lady Webster's, 3 grains.. "
Comp. Calomel, Plummer's Pills, 3 grs. "
Blue Pills, 3 grains..... "
Opium Pills, 1 grain..... "
Calomel Pills, 2 grains..... "
Opium et Acet. Plumb, each 1 grain.... "
Extract of Rhatany, 1 grain..... "

Dragees of 1 *grain each.*

Quevenne's Iron, reduced by Hydrogen.in bulk
" " " Bottles of 100 Dragees
Conicine.....in bulk
Proto Iodide of Iron..... "
" " " .....Bottles of 100 dragees
Lactate of Iron.....in bulk
" " .....Boxes of 130 Dragees
Sulphate of Quinine.....in bulk
Valerianate of Quinine..... "

Dragees of 2 *grains each.*

Citrate of Iron.....in bulk
" " .....Bottles of 130 Dragees
Willow Charcoal..... .....in bulk
" " .....Bottles of 150 Dragees
Diascordium.....in bulk
" .....Bottles of 130 Dragees
Anderson's Anti-bilious and Purg. Pills.in bulk
" " " Boxes of 80 Dragees
Extract of Gentian.....in bulk
Iodine of Potassium..... "
Calcined Magnesia..... "
" " .....Boxes of 200 Dragees
Rhubarb..... .....in bulk
" .....Boxes of 100 Dragees
Ergot, powder cov'd with sugar as soon as pulverized.....in bulk
Phellandria Seed..... "
" " .....Bottles of 150 Dragees
Washed Sulphur.....in bulk
Sub-Nitrate of Bismuth..... "
" " ...Boxes of 200 Dragees
Tartrate of Potassa and Iron.....in bulk
" " " Bottles of 130 Dragees

Dragees of Copaiba, pure solidified.....in bulk
" " .....Bottles of 72 Dragees
" " and Cubebs.....in bulk
" " " Bottles of 72 Dragees
" " Cubebs & Cit. Iron.in bulk
" " " Bottles of 72 Dragees
" Cubebs, pure.....in bulk
" " .....Bottles of 72 Dragees
" " and Alum .....in bulk
" " " Bottles of 72 Dragees
" " Rhatany and Iron.....in bulk
" " " Bottles of 72 Dragees

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THE CHICAGO

MEDICAL JOURNAL.

VOL. II. MARCH, 1859. No. 3.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

CASE OF A FOREIGN BODY IN THE AIR PASSAGES THREE MONTHS.

SUCCESSFUL OPERATION, WITH SUGGESTIONS ON THE BEST MEANS OF PREVENTING HEMORRHAGE DURING THE OPERATION, AND OBVIATING THE EFFECTS OF THE ENTRANCE OF COLD AIR AFTER TRACHEOTOMY.

BY DANIEL BRAINARD, M.D., SURGEON OF U. S. MARINE HOSPITAL, CHICAGO, ETC.

AIR PASSAGES.

Jan. 7th, 1859.—A child two years old was brought to me, with symptoms of a foreign body in the bronchia. The parents stated that, three months previously, the child was seen to put a piece of the shell of a hazelnut in its mouth, and was instantly seized with symptoms of suffocation, so severe as to give apprehension of a fatal issue. From these the child recovered, but has been subject, ever since, to severe paroxysms of coughing, has lost its appetite, and is emaciated.

At present it presents all the appearances of a child affected with whooping cough, except the peculiar sound of inspiration in that disease. On examination of the chest, the respiratory murmur on the right side is found feeble, and a *sibilant ronchus* is distinctly heard, especially during inspiration. A mucous

rattle is also perceptible over the whole of the right side of the chest. There is no dullness on percussion, nor bronchial respiration. There is an offensive odor of the breath, so marked as to be compared only with that perceived in gangrene of the lungs.

Believing these symptoms sufficiently indicated the presence of a foreign body, I proceeded, Jan. 8th, with the assistance of Prof. Byford and Drs. Powell and Durham, to perform the operation of tracheotomy.

After opening the trachea, I passed repeatedly a curved probe downwards, and to the right side, to loosen the foreign body. This produced severe efforts at coughing, and I was about to relinquish all attempts to dislodge it, when about a teaspoonful of thick pus presented itself at the opening, and immediately after it the foreign body itself, which was easily removed.

The child was kept under the influence of chloroform during the whole of the operation; and there is none in which the anæsthetic is more useful.

After the operation, a full dose of black drop was administered. The child soon fell asleep, and continued to rest well during the night. At times, it drank milk freely.

Jan. 9th.—The child appears well in every respect, excepting that the foul odor of the breath continues. It breathes principally through the larynx, the piece of the trachea raised having been left to assume its natural position.

Jan. 13th.—Child improving; has occasional paroxysms of coughing. Takes its food; appears lively.

Jan. 14th.—The child has been affected with twitchings; febrile action. Respiration quickened.

Jan. 19th.—Appears well; playful; appetite good; respiration natural, little cough, and not much mucous in the air passages.

Returned home. Some days afterward I heard of its safe arrival and continued improvement, and have since learned the cure was perfect.

SUGGESTION OF IMPROVEMENTS IN THE OPERATION.

The suggestions which I have to offer in regard to tracheotomy, relate to the means of preventing hemorrhage, to keeping the

opening made by the operation pervious without resorting to a tube, and at the same time controlling the entrance of cold air abruptly into the lungs.

1. *Hemorrhage.*—No experienced surgeon will deny that this is a serious difficulty in this operation. M. Guersent, surgeon of the children's hospital at Paris, than whom there is no better authority on this subject, relates several cases where death occurred from opening large vessels, and one where it happened from the division of the thyroid veins.* Syncope is a frequent effect of this loss of blood, and even suffocation may occur. M. Guersent advises sucking the blood out of the trachea with a catheter, when this is threatened.

In order to prevent hemorrhage, I proceed in the following manner: Having incised the skin and facia by successive and careful incisions, I press the sterno hyoid and sterno thyroid muscles to each side with the fingers, and thus expose the thyroid body. This effected, I pass under the isthmus a director curved, or an aneurismal needle. This is followed by a common suture needle, which may be passed with the blunt end foremost, armed with two very strong ligatures. A ligature is then tied very firmly on each side, and the isthmus of the thyroid body divided between them. A little dissection with a blunt instrument denudes the trachea to the required extent, and an opening can be made without danger of a drop of blood being drawn into it.

The ligatures which have been thus secured, serve the purpose of fixing the trachea, if desirable, and they may be tied behind the neck so as to raise it forward, and keep the wound open. I never open the trachea until the hemorrhage is stopped, and a large surface of it has been quite denuded.

2. *Keeping the opening in the trachea pervious without resorting to a tube.*—The objections to a tube are twofold: 1st, When the operation is performed for the extraction of a foreign body, it prevents its exit; and it is desirable to leave this opening in such a state that the foreign substance may escape whenever it becomes loosened from its situation in the bronchia. 2d,

* *Gazette des Hopitaux*, for 1854, p. 59.

In tracheotomy for croup, the prolonged sojourn of the tube has been considered, by the most eminent surgeons, as a cause of the pneumonias which so frequently are the cause of death.

The necessity for using the tube I avoid by the following means: Having denuded the trachea, insert a small suture needle, armed with a ligature, beneath two of its rings. Withdraw the needle, and, drawing gently upon the thread, make a semi-circular incision on one side, so as to form a valve, readily opened by drawing upon the thread. The opening thus formed can be kept patent or be allowed to close at will.

This is a matter, perhaps, of much greater consequence than might be supposed without reflection. Most surgeons have found their operations for tracheotomy less successful than they had reason *a priori* to expect, and this has been attributed to the direct entrance of cold air into the lungs. Trousseau and Guersent have both advised that the air inhaled at that time should be quite warm without being too hot.

I have ascertained, by direct experiment, that tracheotomy on dogs is followed by a diminution of temperature. I made a small opening in the skin of a strong dog, upon the side of the thorax, and introducing a thermometer, I found the temperature 98° Fahrenheit. I then performed tracheotomy, and at the end of forty-five minutes the temperature had fallen three degrees. This experiment was repeated twice. In one case the result was the same; in the other, when the temperature before the operation was only 95°, it remained the same after.

Every experienced physiologist knows the facility with which young animals die from reduction of temperature, and when we consider the tender age and depressed state of most of the subjects of tracheotomy, it is reasonable to believe that a reduction such as we have noticed is capable of producing, directly or indirectly, the most injurious consequences. Impressed with this belief, I some years since contrived a cover for the opening into the trachea, composed of wire gauze and sponge, to retain the warmth and moisture of the expired air, and communicate them to that which is inspired. The difficulty of procuring and using this cover, prevented me from publishing an account of it. It afterward appeared to me that the same object might be in a

great degree attained by making a valvular opening, so that the air could be directed through the larynx whenever its issue below might not be necessary.

In croup this may be impossible to any great degree, but in the case of foreign bodies, my experience leads me to expect that it will be found both useful and of easy execution.

ARTICLE II.

STOMATITIS MATERNA.

REPORT OF COMMITTEE ON PRACTICAL MEDICINE, OF ILL. STATE MED. SOC., FOR 1858; A CORRECTION, ETC.

BY J. N. GREEN, M.D., OF STILESVILLE, INDIANA.

EDITORS JOURNAL: In reading the report of the Committee on Practical Medicine, of the Illinois State Medical Society, for 1858, as found in the January number of the *Chicago Medical Journal*, I find in that part of the report appropriated to the consideration of the treatment of *stomatitis materna* the following language: "Dr. Hutchinson, of Ohio, has found the bismuth an excellent remedy, not only in controlling the diarrhœa, etc., but also in improving the digestive power of the stomach." Now, it occurs to me that this is an incorrect attribution of the language used. The Dr. Hutchinson quoted is manifestly David Hutchinson, M.D., of Mooresville, Indiana. The quotation is from a prize essay which he wrote on stomatitis materna, for the Rhode Island State Medical Society, and which was published in the *American Journal of the Medical Sciences*, for October, 1857. The misapplication of the language to a Dr. Hutchinson of Ohio, is evidently an inadvertency on the part of the writer, as I am not aware that a physician of that name hailing from Ohio has ever written anything for publication on the subject of stomatitis materna.

Dr. Hutchinson, of Mooresville, Ind., has devoted very much careful and valuable attention and investigation to the subject of stomatitis materna, and it is just that he should have due credit for his liberal contributions to the heretofore, and even yet, very imperfect literature on that subject.

Let me here, also, call the attention of the committee to what I consider an important omission in their report. I allude to their silence on the use of chlorate of potassa in the treatment of the disease. If we are to believe the statements of numerous practitioners all over the West, who are almost daily writing and speaking in laudation of this remedy, it is entitled to credit as *the* remedy in stomatitis materna. And I am enabled to contribute my own limited experience in the use of the article, to the common stock on the subject.

The reasons which may have influenced the committee to entirely ignore, in their report, a remedy which has recently received so much prominence at the hands of the profession for its curative virtues in this disease, I am wholly unprepared to assign; but I am sure it is entitled to less *discourtesy* at their hands than it has received. I have prescribed it, with uniform success, in arresting the paroxysms of the disease. True, the number of cases in which I have used it have not been large, but the promptness with which it has relieved the suffering patient in these cases, has induced the belief in my mind that it is an invaluable remedy. I usually prescribe it in combination with pul. cinchonia. A cure is, of course, facilitated by the usual *et cetera*, which are not in the *programme*, but which are thrown in as adjuvants in the treatment, as well of this as other diseases.

The chlorate is chiefly useful as a hematogen, and, also, "from its catalytic action, by dissolving fibrin, and controlling the inflammatory process;" added to which is the salutary influence of the chlorine which it contains. Hence it will be perceived I do not claim for it the *specific* power over the disease which some have foolishly ascribed to it.

I will not close this article without speaking briefly of another remedy which comes to us with no mean pretensions to usefulness, in stomatitis materna. Its claims to our attention, in this connection, are not founded, however, on the success which has attended its administration; not on account of the trophies which it is enabled to bring with it to attest its power, for it is but just making its *debut* on the remedial stage; but because of its known *modus operandi* on the animal economy, and the

success which has attended its imperfect trial in this and other diseases of analogous pathological conditions. I allude to the *glycerole* of the *hypophosphites*. Combining in an eminent degree the properties of a nutrient, hematogen, and nervous stimulant, it is peculiarly adapted to the cure of the disease. And, from what little personal knowledge I have of its utility, I am convinced a fair trial will establish for it such a reputation on an enduring basis.

There is still another point in this disease, of which I will speak, to which a profitable direction of scientific investigation may be given. It is to a "microscopic examination of the aphthæ, that occur in this disease, in order to determine whether it depends to any extent on fungi developed on the mucous membrane, as some have supposed." The settlement of this question would contribute important aid to the adoption of a more rational and successful practice in the treatment of the local symptoms than any which has been instituted.

ARTICLE III.

CASES, ILLUSTRATING THE PRACTICAL USE OF THE OPHTHALMOSCOPE, AS A MEANS OF DIAGNOSIS, IN CERTAIN DISEASES OF THE EYE.

BY E. L. HOLMES, M.D., OF CHICAGO, ILL.

The introduction of the ophthalmoscope, has formed a new era in the history of ophthalmic science. Before its use had been made known, the diagnosis of many diseases of the eye was attended with as great a degree of uncertainty as that of diseases of the chest previous to the application of the principles of auscultation and percussion.

Any one, who can admire the accuracy with which the skillful physician can trace the progress of disease, by the simple means discovered by Avenbrugger and Laennec, must appreciate the beauty and utility of the invention of Helmholz, by the aid of which the physician can, with his own vision, clearly penetrate the delicate structures of the human eye, witness from day

to day the morbid changes which take place in the choroid, in the retina and its vessels, in the papilla of the optic nerve, the vitreous humor and the lens.

The following cases, which have lately fallen under my observation, will serve to illustrate the practical use of the instrument.

If any of the readers of the *Journal* may not have had an opportunity to examine it, or have not read a description of its construction, I would refer them to a brief article upon the subject in the last volume of the *Journal* (March, 1858).

Case I. Concussion of the Eye.—A robust, healthy, young man, applied to me for advice, four months after receiving a severe blow upon left eye, stating that, although there was at the time a sudden confusion of vision, no external signs of injury were apparent, except slight ecchymosis in the adjacent tissues, which soon yielded to simple remedies, without much improvement of vision. During the past three months, patient has observed no favorable change. Every object in nearly the whole field of vision, appears (with the healthy eye closed) enveloped in a dark cloud, in which are numerous black spots, which remain fixed in the same relative position, and consequently are not to be regarded as *floating bodies* in the vitreous humor. Patient complains of no pain in the eye, except after reading or writing. At present the iris acts readily under the influence of light, and the power of adjusting the focus of the eye appears normal.

The ophthalmoscope reveals a small, circular, semi-opaque disk, with irregular edges, situated just behind the lens, and, possibly, lying in contact with its posterior convex surface. This disk, of chocolate color, except in small points, which are much darker (corresponding to the black spots observed by the patient), is undoubtedly produced by the extravasation of blood from the vessels of the anterior portion of the eye. This was not sufficiently extensive to produce disorganizing inflammation, but simply to effuse a small quantity of blood behind the lens, the serum of which became absorbed, leaving the coloring matter in a position to disturb vision as above described.

In my opinion, little benefit can be hoped from treatment.

Case II. Retinal Amaurosis.—A young woman, twenty-six years of age, of somewhat feeble constitution, has been affected for more than eight years, with constantly-progressing amaurosis, for which she was several months under treatment, at the New York Eye and Ear Infirmary, but without benefit. Since the commencement of the disease, patient has experienced a slight, dull pain in and around each eye, which, however, during the past year, has subsided in a great measure. She is unable to distinguish small objects, although she can do most kinds of housework. Pupils are slightly dilated, and not very sensitive to the influence of light.

An examination with the ophthalmoscope demonstrates, in the right eye (which is much the less serviceable to the patient) the existence of numerous, irregular, black patches of pigment. The outlines of the papule of the optic nerve are not so well defined as in health. The vessels of the retina in various places are more or less obscured by what appears to be lymph, deposited in the substance of the membrane by inflammatory action. The mere fact that black pigment, even in such quantities as found here, is deposited beneath the retina, is not enough to explain the loss of sight, since we often see similar appearances with little functional derangement. But this deposition is frequently accompanied with other unpleasant circumstances, such as pain in and around the eye, attended with a feeling of pressure and vertigo—symptoms of congestion.

In this case, these symptoms, accompanying the peculiar condition of the retinal vessels, plainly show that an inflammatory process has been going on in the choroid and retina.

The portions of the retina near the optic nerve are less affected than those nearer the cornea.

The left eye presents the same general aspect, although the morbid changes are somewhat less marked. The prognosis is unfavorable, and, unfortunately, scarcely any good results are to be expected from treatment.

[To be continued.]

ARTICLE IV.

THE ALKALINE TREATMENT OF RHEUMATISM.

BY B. F. SCHNECK, M.D., OF LEBANON, PA.

To Dr. Fuller* belongs the credit of having published, probably, the most rational as well as successful treatment of this very common and painful affection, with which we are acquainted. The great merit of the plan, and which entitles it to a ready acceptance at our hands, lies in the fact that a certain theory which it assumes is proven to be correct—palpably, to the senses, in every case—by the treatment recommended. The object of this paper being only to adduce facts and cases confirmatory of the plan in question, it will not be necessary to go into a detailed statement of the author's views, further than may be necessary to make them intelligible to those who may not have seen his work.

That morbid state of system, which all must have observed in rheumatism, manifested by acid saliva, acid urine, and intensely sour-smelling perspiration, is regarded as the *causus morbi*, and its removal the sure guarantee of a speedy recovery. When treating of the seat of rheumatism, the author thus, in a few words, elaborates his entire theory:

"The reason of this predilection of the rheumatic poison for the fibrous and fibro-serous textures throughout the body, is not at first sight obvious, nor, indeed, after the most careful consideration, can we assign to it other than a conjectural cause. But it is worthy of note, that the textures most commonly implicated in rheumatism are all examples of the albuminous and gelatinous tissues, from the decomposition of which, in the wear and tear of the body, are formed those secondary organic compounds, the lithic and lactic acids, with which gout and rheumatism are intimately connected. And as it is but consistent with our knowledge respecting the processes of nutrition

* On Rheumatism, Rheumatic Gout, and Sciatica; their Pathology, Symptoms, and Treatment. By Henry William Fuller, M.D., Cantab., Fellow of the College of Physicians, London; Assistant Physician to St. George's Hospital, etc., etc. London, 1852. 8vo., pp. 403.

and assimilation, to suppose that each tissue selects from the blood and appropriates to itself such matters as correspond with it in chemical constitution, we may readily conceive that some peculiar attraction may be exerted by the fibrous and fibro-serous textures for compounds, such as lithic and lactic acids, to which they bear so strong an affinity."

These acids—the lithic and lactic—and possibly others—to whose presence in the blood, and hence in the secretions, the author modestly and only *conjecturally* ascribes the existence of the disease, are undoubtedly its true cause. In every case which has come under my observation for the last five years, my attention has been kept specially directed to this point; and I have found, invariably, that as long as the acid state of the system was not neutralized, and the various secretions continued to show acid reactions, there was no real, permanent improvement. But no sooner was the blood saturated with the neutral salts, and the various secretions showed alkaline reactions, than recovery might be confidently and speedily predicted.

However successful nitrate of potassa, guaiacum, mercury, colchicum, quinine, lemon juice, and, more lately, veratrum viride, may occasionally be in rheumatism, it will be admitted by all that they frequently fail; and it is claimed for the alkaline treatment, that it, more than any other method, opposes the most rational remedies to the disease, and cures upon intelligent and intelligible principles. Quinine, it is said, acts beneficially in this affection, in that it reduces the frequency and force of the pulse, and so moderates the rheumatic fever; and the same is lately claimed, to a still greater degree, for the energetic veratrum viride, as though to diminish the frequency of the heart's action and lessen its impulse, were to counteract the cause upon which these mere effects depend. Beyond this, and deeply below this superficial view, goes the method of Dr. Fuller, which presupposes, for successful treatment, a vital but not the less a chemical action in the economy—a real neutralization of an acid by an alkali. It is the object of this paper to bespeak for the plan a favorable consideration, and a more general adoption.

As regards the treatment, Dr. F. says: "The form in which

I usually administer the remedies, is that of a simple saline or nitre draught, to which, if the patient be a person of average strength and robustness, bathed in profuse perspiration, with red, swollen, and exquisitely painful joints, a furred tongue, loaded urine, and a full and bounding pulse, I usually add from two to three drachms of the potassio-tartrate of soda, ten or fifteen minims of the vinum colchici, from fifteen to twenty minims of the vinim antimonii, and from ten to fifteen minims of the tinctura opii, or of Battley's sedative solution, to prevent the salt running off by the bowels. This draught is repeated for the first twelve or twenty-four hours at intervals of three or four hours." * * *

After that the intervals are lengthened; and generally after the lapse of three or four days, the amendment is so decided as to justify a resort to quinia, which, either alone or in conjunction with some of the alteratives, is soon followed by complete recovery.

With reference to local remedies, Dr. F. informs us that he usually employs the following: ℞ Potasso carbonat. ʒi.; liquor. opii sedative ʒvi.; aqua rosæ ʒix. "It is applied by soaking thin flannel in the solution, and applying this to the inflamed parts, and then enveloping the whole in gutta percha."

The several cases which follow have been selected from a large number on my record, in illustration and confirmation of the alkaline treatment, as taught by Dr. Fuller.

Case I. Acute Articular Rheumatism, with Sequelæ.—1855. The wife of Jno. B. M—— was attacked with acute dysentery, on Sept. 10th, from which she convalesced, after four weeks' illness, very much reduced. About the 18th of October, she felt stiffness of both knees; soon, also, great swelling, with heat, redness, and acute pain manifested themselves. High fever now appeared, and the case was decided enough. How would the usual remedies for rheumatism, as nitre, colchicum, Scudamore's mixture, etc., answer in this case, where the alimentary canal was still in a very irritable condition from the dysenteric attack? I tried small doses of Dover's powder and calomel for a few days, from apprehensions as to the tolerance of severer remedies by the bowels; but finding not the least

improvement, I made the usual and favorite Rochelle salt solution, guarding its purgative tendency by full proportions of laudanum. On the second day the patient felt better. The elbows were now effected; and after a few days the right wrist and ankle, then the right hip (an unusual place), then again the knees, and so on several times in rotation, but every successive attack milder than the former. In two weeks the patient left her bed convalescent, but complaining of slight pain in the right eye. Examining it, I found sclerotites of considerable severity. Knowing it to be rheumatism purely, I resolved to try a novel experiment; and accordingly merely continued the alkaline treatment, with the addition of Dover's p. 10 grs., cal. 1 gr., at bed time. Neither general nor local depletion, nor any topical applications were resorted to. Every day the redness became fainter, the eye felt better, and in eight days it was perfectly well, without even purgatives or blisters.

Upward of a week afterward, I was sent for again, to see a new phase of this strange case. The ball of the great toe of the right foot was affected with acute gout, well developed. After a brisk dose of Scudamore's purgative mixture, I gave the usual alkaline solution, with, however, a double proportion of wine of colchicum. In three days the toe ceased to be painful, red, and swollen, and rheumatic gout of the right eye again appeared; the inflammation being of a much higher grade than before. I repeated the purgative as above, and trusted to Rochelle salt, which was given in as large doses as the bowels would bear. The improvement, which was gradual but sure, was helped by Dover's p. and cal. at night; and in two weeks afterward the eye was again natural, both as to function and appearance. The sclerotic coat alone showed slight evidence of inflammation in a faint dullness, or ashy gray color, as compared with the clear white of the uninflamed eye.

I feel confident, from the success attending the treatment of this case, that rheumatic ophthalmia can, in most instances, be more effectually and speedily cured—and with more comfort to the patient, too—by the simple method above detailed, than by bleeding, cupping, blisters, and other energetic measures, or the always-unpleasant infliction of a salivation.

Case II. Long-standing Sub-acute Rheumatism, with Complications.—On Monday, Oct. 15, 1855, I saw David W——, aged 40, for the first time, and obtained the following history: In November last, he was attacked with acute rheumatism, for which he was treated by a neighboring physician by the following mixture, principally: whisky one quart, saltpetre half a pound; to this was added a certain quantity (I could not infer how much) of powdered guaiac. The dose was a good, large draught, three times a day. It is natural to suppose that no stomach would hold out long against such heroic medication; and I was told, that before the first prescription was all taken, vomiting, purging, and great gastric distress for a while existed. A second dose, whisky a pint, saltpetre a quarter of a pound, was, however, ordered, and also taken. Some time in the following January, there was a translation to some internal organ, as I should judge from his rather incoherent account, for which he was bled twice, cupped once, and blistered innumerable times, until the "pain in his side" left him. During the spring and summer, the affection was gradually losing its open, inflammatory character, and assuming the sub-acute form. During this time he was seen by a number of physicians, and prescribed for by all, with but moderate success.

I found him as follows: Greatly emaciated; pulse frequent and irritable; skin hot and feverish; tongue very thickly plastered with a yellowish white crust, which, in three or four places, had scaled off, leaving the surface red, smooth, and divested of the papillary structure; bowels very much bound; sleep restless, and much interrupted by the pain of the extremities. Urine scanty, high colored, and very acid. The knees were very painful and slightly swollen; and the metacarpo-phalangeal articulation of the right hand and the wrist of the left were greatly swollen, red, and very sore. The wrist of the right hand was enormously thickened, but not painful.

Put the patient on the use of the following:

℞ Rochelle salt, ℥i.
Sp. nitric ether, ℥ij.
Vin. colchici, } aa, ℥ss.
Vin. antimon, }
Tinct. opii, ℥ij.
Aqua, to fill a six ounce vial. M.

Sig. A tablespoonful every two or three hours.

To correct the gastro-intestinal disorder, gave the following:

℞ Pulv. rad. gentian, ℥ss.
Pulv. rad. rhei, ʒi.
Sodæ bi-carbon, ʒiij.

M. and divide into four parcels. Half a pint of hot infusion to be made of a parcel; dose, a wineglassful three times a day.

Unguent. tabaci to the painful joints.

October 22*d.*—Somewhat better; has less pain; sleeps well; pulse slower and less angry; tongue very thinly coated and clearing; bowels still costive; second and third metacarpo-phalangeal joints of left hand now affected; knees better; feels very hopeful, but is entirely helpless. Continue remedies, with addition of extr. taraxaci.

October 30*th.*—Has more pain; not so well in all respects as at last visit. Very costive; increased the quantity of rhei. Continued alkaline solution, with larger proportion of Rochelle salt.

November 10*th.*—In statu quo. Increased the strength of alkaline solution, and gave, twice a day, cal. ¾ gr., opium ½ gr., ipecac ¼ gr. Observing several white stains upon his pants, in such a situation as might be produced by drops of urine, I inquired, and was told that some drops had lately fallen there, and left the spots in question. He had observed, during the summer, that when urinating on the back porch, the place accidentally wetted on the boards, looked, when dry, as though very fine, dry salt had been sprinkled over it. I tested his urine for diabetes mellitus, but found no traces of sugar.

November 16*th.*—Gums slightly touched. Discontinue cal. and opium, but continue solution. Alkaline lotion to joints. Ordered Scudamore's mixture for the first time.

November 18*th.*—Was sent for in haste; severe purging, with cramp of stomach, caused, perhaps, by Scudamore's mix. Morphia soon quieted the intestinal commotion.

November 24*th.*—Symptoms of improvement. Continue solution; tr. iodine to joints, with alkaline and anodyne lotion.

December 1*st.*—Much better, as manifested by the softened

slow pulse, the freedom from articular pain, and a subsidence of the swelling in all the joints. Is able to walk about the room with a crutch. Syr. iodide iron forty drops, three times a day; bi-chloride mercury one-sixteenth gr. every evening. Ordered a warm bath, impregnated with sulphuret potassa, three times a week, half an hour at a time. Patient lies in it at full length, derives the greatest comfort and ease from it, and would continue it all day long, if permitted.

December 21*st*.—Walked to-day without staff or assistance. Joints still somewhat painful, but swelling all gone. Nutrition is very well performed; face is filling up, and color is good. Continue remedies, with occasional dose of alkaline solution.

From this time forward, until the latter part of April, when I made him my last visit, the improvement was slow, but steady, except occasionally a sub-acute swelling of the small joints of the fingers, generally only of short duration. At last visit gave him two grs. iron by hydrogen, three times a day, which, with warm, sulphuretted baths, were continued for some months. He has had no relapses; has been for the past eighteen months, and is now, again actively engaged in various business callings; and his present vigorous health gives no evidence whatever of the unlucky *pickle* in which I originally found him, and which had well nigh effectually *cured*, not only his stomach, but the entire organism.

If there were any use in multiplying cases, I might adduce many other and similar examples, illustrating the favorable results of this treatment.

In sub-acute and chronic rheumatism, its beneficial effects are equally decided. In illustration, I will quote

Case III.—I was consulted, several weeks ago, by J. B——, for a very painful and lamed condition of his right shoulder. Had felt it coming on for upward of a week; and it was now so bad that the least motion of the arm was agonizing. There was no swelling nor fever. Gave Rochelle salt ʒij., Dover's p. grs. viij., three times a day, with 30–40 drops of wine of colchicum to each dose; and applied the alkaline and anodyne lotion locally, covering the part with oiled silk. In two days

the pain became quite tolerable, and the man got sound, refreshing sleep at night; and in eight days he had recovered the full use of his limb, driving his own carriage, and experiencing only a feeling of numbness, which in a short time yielded to a strong camphorated liniment.

ARTICLE V.

SPONGY GUMS.

BY T. W. FRY, M.D., OF CRAWFORDSVILLE, IND.

On the 28th day of May, 1855, I was called to Fountain County, in consultation with Dr. Thomas, to see Mrs. W., who had been diseased about fourteen years, and had received treatment from a number of physicians, without the slightest improvement. I found her very much emaciated, desponding, and having but little hope of recovery. She was tall, spare, of dark complexion, and evidently of scrofulous diathesis; most of her teeth were badly decayed, her gums were exceedingly spongy, and grown both above and below, so as to envelope the teeth, presenting a perpetually-bleeding surface; she could take food only in a liquid form, and had but little relish for that. From all that I could learn of the treatment previously adopted, it consisted in making incisions in the gums and applying styptics to the bleeding surface. The constitutional remedies were generally of a depleting character, among which were the various preparations of mercury, which served but to increase the virulence of the disease and diminish the hope of recovery. The course of treatment adopted and pursued after consultation with Dr. Thomas, consisted in cutting away all that portion of the gum which had grown above the natural attachment to the teeth, and applying alternately to the exposed surface the tincture of catechu and a solution of the nitrate of silver, in the proportion of ten grains to the ounce. By this means the bleeding and further growth of the gums were prevented. She was immediately put on the use of tonics, iodide of potassium, a more nourishing diet, and cod liver oil. Under this treat-

ment her health rapidly improved, and now, after the lapse of three years, she is in the enjoyment of good health, and has had no recurrence of the disease.

My object, Mr. Editor, in reporting cases that have occurred so long ago, is to be certain that the cures are permanent. The thought has often struck my mind, that very many of our young physicians, ambitious of appearing in the public journals of the day, and of securing an early and brilliant fame, sometimes report extraordinary cures before a sufficient time has elapsed for them to know whether or not they are permanent. How often has it happened, even with the ablest, the most experienced, and the most skillful of our profession, that they have watched with unceasing care and unflagging interest, cases of peculiar nature and rare occurrence, and fondly hoped that success had crowned their long and anxious efforts, but suddenly some unlooked-for, untoward symptoms appear; their hopes are dashed in a moment, and the patient passes away when convalescence seemed to have been established. These cases may have appeared in leading journals of the world, and added new lustre to the physician wherever those journals are read. Far better would it be for our profession, based, as it should be, upon principles carefully deduced from well-established facts, that less haste should be observed in the publication of cures effected, especially in chronic cases. Then would the literature of our science be disencumbered of much that is useless, if not really pernicious.

ARTICLE VI.

INTESTINAL CONCRETIONS.

BY F. K. BAILEY, M.D., OF JOLIET, ILL.

Was called Saturday evening, January 9th, 1858, to see Mrs. G., aged 60. She had complained for nearly twenty-four hours of severe pain in the left hypogastric region, attended with great nausea, and constant vomiting of whatever was swallowed, immediately after being taken.

The tongue was coated at the middle and base, and red at the tip. Pulse soft, and not over ninety in a minute. There had been no chill, nor febrile excitement since the attack.

I had been called two or three times, within six or eight months previous, to prescribe for a severe pain in the region of the stomach, of a neuralgic character, which had yielded to the prompt use of anodynes. She had complained of this pain in the stomach, at times, about a year previous to her removal to the city. She was obliged to exercise great caution in the use of many articles of diet, which by most people would be borne without inconvenience. To allay this pain, she had acquired the habit of taking morphine. To obviate the constipating effects of the morphine, she had taken cathartics of different kinds.

Never until the present time, however, had vomiting attended the paroxysms of pain from which she had suffered so much. A laxative, by anodynes, had sufficed to produce relief.

At this time the symptoms were unlike those of any previous attack. The pain was lower, very intense, with a great degree of tenderness upon pressure, and inability to turn in bed.

Organic disease seemed to have existed, to cause such paroxysms of pain in months past, and the severe nausea and vomiting at this time, attended with a soft and slow pulse, caused apprehensions of a fatal result. Prescribed powders composed of pulv. opii and saccharine ext. aconite, each one grain, to be given every two hours, with sinapisms to the seat of pain and the lower extremities, and mucilaginous drinks.

Sunday morning, 10 *o'clock*.—No better; vomiting has continued through the night, with no abatement of the local distress. No evacuation from the bowels or bladder. The ejection from the stomach consisted of drinks, and a dark green substance floating upon the surface. Pulse same as last evening. To continue same powders, with the addition of a grain of calomel, every four hours. To administer enemata of solution of common salt, with the addition of ʒij. oil turpentine.

Monday morning, 11 *o'clock*.—No better. Still rejects drinks, with the green secretion. Nothing retained upon the stomach, and no evacuation from bowels or bladder. Tongue more

coated and thirst more intense. Begs for drink, and swallows only to reject it from the stomach. Pulse eighty, and occasionally intermitting. Becoming weaker every hour. To continue powders, and applied a belladonna plaster to the seat of pain. Seven o'clock, evening, no change. Enemata passed off with no effect. Pulse seventy-five, feeble and intermitting. Discontinue powders, and to give nothing but flax-seed water through the night, with a little gruel.

Tuesday morning.—Pain still continues, with occasional distress in the region of the liver. Prescribed powders of ext. aconite 1 grain, sul. morphine $\frac{1}{6}$ grain, calomel 5 grains, once in four hours, mixed with pulverized sugar, and placed dry upon the tongue. *Evening.*—Feels somewhat better. She thought the first powder produced relief. Has vomited, however, through the day, and during the evening ejected a quantity of yellowish green substance, and, for the first time since the attack, drops of sweat were seen upon the face.

A small quantity of dark urine was voided during the afternoon, the first for some days. To discontinue the powders, of which she had taken three, and give injections of salts and senna infusion during the night. To take mucilaginous drinks and gruel.

Wednesday morning.—Nausea not so great, but has vomited at times through the night, and the substance ejected has a decided fæcal smell. Slight evacuation from the bowels this morning, of a bilious character, and very offensive. To take nothing through the day but water and gruel, and to be kept as quiet as possible.

Evening.—Has not vomited much through the day. Pain less severe. Slight evacuation from bowels, and urine more copious. Has been very thirsty.

The pain is "working down," to use the patient's words. Pulse fuller and stronger. Can take rice water with some relish. Turns in bed with less difficulty, and is evidently improving.

Thursday morning.—Has slept some during the past night. Free evacuations from the bowels. Nausea nearly ceased, and pain much lessened. To have some beef broth.

Friday morning.—Much improved, and begins to relish food; has passed a quantity of hardened fæces; and feels free from nausea.

Saturday morning.—Still better. Has slept very well during the night. Last evening she voided from the rectum, a solid, oval-shaped mass, weighing 183 grains, and about the color of rhubarb root. The specimen is herewith presented to the members of the society for inspection.

From this time the patient continued to improve, and up to the date of this paper, has enjoyed better health than she had for some years.

We have, in the case before us, one presenting the usual symptoms of intestinal obstruction, with the evident cause of the obstruction voided. The severity of the symptoms, and fortunate recovery, with the voiding of the concretion above mentioned, rendered the case one of much interest at the time of its occurrence. The works upon practical medicine speak of intestinal concretions as constituting a cause of obstruction. The above case presented many of the usual appearances seen in that morbid condition.

The great depression of vital energy, constant vomiting, and other symptoms, threatened immediate death, and such would have been the result, had not the mass been dislodged and expelled. From the previous history of the case, it is probable that it had been a source of trouble for nearly two years, and perhaps for a greater length of time.

It was not our design that this article should be published in the transactions, when read to the society, but merely to accompany the exhibition of the specimen.

ARTICLE VII.

INJECTION OF SOLUTION OF NIT. SILVER INTO THE LARYNX IN MEMBRANOUS CROUP.

BY J. H. REEDER, M.D., OF LACON, ILLINOIS.

I have long felt that we were far behind the age in the treatment of membranous croup, and especially that form which is the result of the extension of diphtheric inflammation into the air passages. While many forms of disease which, a few years ago, were considered almost necessarily fatal, have been made to yield to the advancement of medical science, membranous croup still claims a large per cent. of mortality, and the proportion of fatal cases are far too great to suit my notion of the efficacy of remedial agents.

Within the last few months, I have, in three cases, used tracheal injections of sol. nit. argentum, of from ten to forty grains of the salt to the ounce of distilled water, with the most happy results. The first case occurred in December last. H. C., daughter of the Presbyterian minister of this place, aged about six years, had a slight attack of diphtheria, which was so slight that the parents did not think it necessary to call a physician. In the course of a few days, croupy symptoms began to manifest themselves, at which time I was called to attend the case.

I found very little fever; no eruption; the tonsils were swollen and covered with diphtheric deposit, as was also the pharynx; the respiration grew especially more and more difficult, until suffocation seemed to be inevitable, notwithstanding all the means at my command were used to relieve her. I resolved to try the injection of sol. nit. silver into the trachea. I accordingly made a solution of forty grains to the ounce of water, and threw about a drachm into the trachea. The effect was astonishing. Large quantities of coagulated mucous, with fragments of detached false membrane, was immediately thrown off, with very little effort on the part of the patient, and with immediate relief of all the varying symptoms. In the course of a few hours the breathing again became labored; the injec-

tion was repeated with the same result as before. They were repeated at intervals of from ten to twenty-four hours, for three or four days, when it was no longer necessary. Very little else was done except to give, occasionally, Dover's powders, to give rest; castor oil, to move bowels once or twice daily. I have treated two cases since in the same manner, with the same result.

I used, for the purpose of giving the injections, *Warren's Laryngeal Syringe*, and think it far superior to the ordinary probang. It can be introduced with less difficulty, and the bulb being perforated laterally, directs the solution just where you want it.

ARTICLE VIII.

OBSTRUCTION OF THE BOWELS AND EXTRA-UTERINE PREGNANCY.

BY DR. R. F. HENRY, OF PRINCEVILLE, ILL.

On the 22d ultimo, I was called to see Mrs. T——, who was attacked, a few hours previous to my arrival, with severe pains in the epigastric region, which I diagnosed and treated as colic. Her bowels had acted freely a short time before the attack commenced. There was no flatulent distention of the abdomen, and but little tenderness on using pressure. The use of anodynes and alteratives gave her relief, and in the course of twenty-four hours I administered a cathartic, which I found necessary to repeat in due time, but no action on the bowels followed. A more active purgation was then given, and followed up with clysters, but withal the bowels remained unacted upon. Nausea and vomiting ensued. Pain in the epigastric region returned, with flatulent distention and tenderness. On the third day of the attack, the matters vomited assumed a fæcal character. Dr. L. M. Andrews was then called in, and afterwards Dr. Milligan, of Wyoming, who suggested the possibility of there being intus-susceptio of a portion of the intestines, which might be reached with enema of tepid water. The experiment was tried, but no relief was obtained. To give a

full detail of the case seems unnecessary. Suffice it to say, that everything was done to relieve pain, etc., that careful nursing and assiduous attention could effect, but the patient sank and died on the evening of the 27th ult., at 6 o'clock. Eighteen hours after death, the body was examined by Dr. Andrews and myself, Mr. E. Russell being present. On laying open the abdomen, the intestines were seen very much distended and their walls congested. On unraveling the canal, the obstruction was found in the transverse and descending colon; which consisted in a permanent constriction, commencing about midway the transverse and continuing nearly the whole length of the descending colon, the coats of which were at some places atrophied, and at others very much thickened. The whole constricted portion of the colon was empty. On inflating it, we saw it was very small in diameter, varying from half an inch to that of half the natural size. Above the obstruction the intestines were distended by a large quantity of fæcal matter, having no way of escape except by the mouth. A further examination of the contents of the abdomen revealed a peculiar sac, which was situated immediately over the fundus of the uterus, and adherent to a portion of the ilium, omentum and peritoneum, containing a fœtus of three months' growth, and a placenta, both in a pretty good state of preservation. The walls of the sac were, mostly, very thin, composed, apparently, of a mucous, or internal coat, a vascular and serous coats. The base of the sac, however, was thicker, and appeared to be cartilagenous at one point. On examining the connections of the sac more closely, we found another sac or cyst, lying between it and the uterus, and folded upon the latter. Its diameter was about half an inch, its length an inch and a quarter; it was connected at one end with the uterus, the other opened into the sac first described, at its base. The walls of this sac were composed of material similar to that of the uterus itself. The cavity was of sufficient capacity to contain half a teaspoonful of fluids, perhaps, without distention, being gourd-shaped. The small end passed into the cavity of the uterus, at the right superior angle, near where the fallopian tube arose. The large end communicated with the cavity of

the sac, containing the fœtus, by an opening at the end, which very much resembled the os uteri externum.

The uterus, with the exception of this cornu (if I may so call it), was natural in appearance and healthy, having performed its usual function of menstruation, even during the attack of the last sickness.

The ovaries and fallopian tubes, both healthy.

I learn from the surviving husband of deceased, that she was thirty-eight years of age, and had been married nineteen years. Had never given birth to any children, menstruated regularly, and had enjoyed pretty good health until about four years since, when she had an attack of sickness, and at which time I was called to attend her. I did not note the particulars of her case at that time, but I recollect that she had labor pains, or something like them, and that she informed me she was *enciente*, or supposed she was, as she had not had her catamenias for three periods; however, the periodical pains ceased in due time, but were followed by symptoms of peritonitis, which were very obstinate; but she finally got well, and had enjoyed a good share of health until her last illness, except two or three light attacks of colic, which readily yielded to proper remedial agents.

On reviewing this case, it seems to me that the fecundated ovum must have found its way into this *cornu uteri*, when it was developed and expelled, forming a sac in the peritoneum, producing inflammation and adhesion in the contiguous parts, and that this was the cause of her sickness at the time above named, viz: four years ago.

ARTICLE IX.

CASE OF CANCER OF THE CONJUNCTIVA. EXTIRPATION OF THE GLOBE OF THE EYE. CASE OF NASAL POLYPUS CURED BY OPERATION AND APPLICATIONS.

BY CHARLES BRACKETT, M.D., OF ROCHESTER, IND.

The following interesting case came under my observation in October, 1858. The subject, Abraham Blue, aged about seventy, wished me to examine his right eye, which was protuberant, having the appearance and consistence of highly congested cerebral substance, secreting quite freely a gummy sort of pus, accompanied by slight lancinating pains, but most troublesome to the patient on account of the free discharge of pus from the surface.

I judged, from first sight, that it was a case of medullary sarcoma. The patient said that he had had, for several years, "what the doctors called pterygium," which had followed a severe blow on the right cheek, which had indented the mala bone. Said it had grown externally, and that he thought the internal eye was sound; that he could tell in which direction the light was.

I gave a wash of sul. zinc solved in water, and directed him to come again in one week; using, in the mean time, occasional laxative doses of sul. magnesia.

He returned, and I determined to try first to save the ball, as, by exploration with needle, I found it sound. Assisted by Dr. Gould, by a tedious operation, I removed the brain-like mass all clean from the conjunctiva, cauterized the surface with the nit. argt., and gave a saturated solut. to apply twice per day. After eight weeks he returned, the fungus mass larger than ever, so that the lids could not be closed over it. The same profuse discharge present as before; had been growing for four weeks. He wished to be freed from the disease; and, assisted by Drs. Gould and Wilkins, I again proceeded to explore. At this time the needle passed through the soft mass almost with no resistance, three-fourths of an inch, then encountered the ball, and passed through the coats of the ball almost

as easily as through the medullary mass, proving that they were rapidly undergoing the softening metamorphosis, and declaring the speedy extirpation of the ball the only hope.

I told the patient the condition of things, and he cheerfully consented to part with the offending eye, telling me to "pluck it out."

After the removal, the coats were all softened, the retina congested, the lens either absorbed or lost, as I could not find it, the vitreous humor lessened in quantity and becoming clouded. The optic nerve, where cut, appeared healthy, as did all parts posterior to the ball.

Here is a fungous growth, commencing in or on the conjunctiva, protruding between the palpebræ; and the parts below undergoing transformation into like disease; a soft, brain-like mass, quite vascular, and, since the first operation, attended with constant pain, aggravated occasionally by severe lancinating pains. Was it *cancer cerebriform?* This is the conclusion I have arrived at.

The patient had been long troubled with dysuria. This left him from the time of removal of the ball, and has not yet reappeared. I thought that probably the dose of *morphine and soda* had something to do with the relief. At any rate, this was all the medicine he had taken, except the sul. mag. as a laxative.

The operation was performed on Wednesday, the 20th of December, and from that day on, the patient was up most of the time till the 26th, when he felt well enough to ride home, a distance of about twenty miles.

Lewis Spatz, aged twenty, with polypus of nose, came to me to have it removed. After some five or six different trials, succeeded in relieving him perfectly. The polypus was tough and fibrous, and filled the whole sup. post naris, and protruding from anterior nostril. The difficulties in the way of its complete removal were, profuse hemorrhage, and the shreddy condition of the mass after a part had been taken away. I used the ligature, knife and forceps, at different times. Upon finding I could not get it all after various trials, I applied sul. zinc and

pulv. rad. sanguinaria. This so completely killed the whole mass, after a week's daily application, that I removed it entire with the forceps without difficulty, and with comparatively slight pain to the patient. The snuffing of pulv. sanguinaria, canadensis and sul. zinc, restored the mucous lining to complete health, now for nearly six months past. Here the blood root and zinc performed a valuable part by killing the whole mass, toughening it, and rendering its removal an *easy* matter, when, before, I was almost discouraged, as it seemed to grow faster than I could remove it. Like the heart of Prometheus, "Quantum vero interdin exederat, tantrim nocte cresebat."

This is one of the preparations of the *celebrated* American cancer doctor, in London, before whose *fell* hand the horrid cancer crawls away, and hides his head in grief. The discovery, he claims, he made during a long "imprisonment among the North-American Indians on the shores of Lake Superior," by the great "Gitchee Gummee, the big sea water," and our cousin Johnny Bull lops his ears before the "Cancer Master." Seriously the articles are both of vast utility, and probably not as fully appreciated by the profession generally as their virtues warrant, especially in the cure of nasal polypi. I have by them alone succeeded in at least two cases of soft polypi.

EXTRACTS.

An Address to the Graduates of the Ohio College of Dental Surgery, session of 1858-9, *by W. W. Allport, D.D.S., of Chicago.*

The invitation extended to Dr. Allport, to address the graduating class of the Ohio College of Dental Surgery, was a marked compliment to one of our citizens, and a tribute to his skill and character. He is well known, and his skill is appreciated here. It is gratifying to know that his position is no less recognized abroad. That which we did not know, however, and what the Doctor has taken care to show us, in this

address, is the fact that his pen is as sharp as his instruments, and comes as directly to the point. In proof and illustration, we should be pleased to present the whole of this address to our readers, but for want of space must be content with one or two passages, not inapplicable to the medical, as well as to the dental profession.

"It is necessary that you should have a manly independence, and to feel this you must be out of debt. If the kindness of friends, or the forbearance of your teachers, has furnished you with the means of education, or assistance, to enable you to enter upon the discharge of your professional duties, you ought to repay them from your very first earnings. No man has a free will and cheerful heart, who goes to his work the slave of debt. It fetters, at every step of life, and leaves the door open for continual misunderstanding, and may sever the closest friendship. A prompt paymaster must be a good collector. Success in any business depends upon a careful attention to bills payable and bills receivable. You will also find that work which is paid for will fit better, and last longer, than work unpaid for. With some patients, few things stop the uneasiness of a newly filled tooth, or remedy the defects in a new set of teeth, or add to his reputation, like the honest payment of the dentist's bill. Few callings give greater room for misunderstanding than our own, but you will find that honest work for honest people will give but little trouble. * * * *

"You should husband well your time, and remember that life and reputation are made up of little things; that every act adds to or detracts from an honored name. You can not expect to gather figs of thorns, or grapes of thistles. Character is not a thing of chance, nor skill the reward of ignorance or idleness."

(From the Nashville Medical Journal for March, 1859.)

Straightening a Limb by Dr. Brainard's Method. By Paul F. Eve, M.D.

During the past month (January) I have succeeded by the operation proposed by Professor Daniel Brainard, M.D., of

the Rush Medical College, Chicago, Illinois, in restoring a leg to the straight position. It was performed before our class.

The patient is of Sequachey Valley, East Tennessee, now ten years old, who six years ago sustained a fracture of both bones of his left leg; then a second injury at the site of the first, and the case was subsequently neglected. There had resulted a permanent osseous union, but with the lower third of the limb bent an angle of about sixty degrees from the straight line. The tibia and fibula were both flattened latterly, and the boy used a pair of crutches for locomotion.

Placed under chloroform and ether, with a brad awl the tibia and fibula were several times perforated through one opening made in the skin, and the bones re-fractured by the hands. The larger bone readily yielded, but the smaller one was not sufficiently divided. Owing to the severity of the operation, and the free use of the anæsthetic agents, we desisted for the time. Ten days afterwards the fibula was again attacked by the awl, and then the limb brought perfectly straight. It was now placed in a fracture box, extension and counter-extension maintained as usual, and a weight—a pound of shot in a bag—retained over the point where the angle existed, so as to assist in keeping it straight. The leg not having been developed, is about two inches shorter than its corresponding fellow. The patient has returned home.

The case is not presented as a cure, but to exhibit how easily it was brought into a straight position by an operation, devised by an American, honored by our National Medical Association for it in 1854, and which is so simple when compared with former operative procedures on the bones for deformities.

(From the Medical and Surgical Reporter for March 5, 1859.)

Ankylosis of the Knee-Joint — Novel Mode of Treatment by Fracture of the Thigh-Bone.

In the case of ankylosis of the knee-joint, reported on page 390, in which the application of apparatus was temporarily

suspended for fear of producing subluxation of the head of the tibia, it is proposed to-day to adopt a novel mode of treatment. Amputation is sometimes practiced in similar cases, where all other means of relief have failed, or the plan of Barton, which consists in the removal of a V-shaped section of bone, and the application of a Stromeyer's screw to straighten the limb. But the latter mode produced a sort of compound fracture of the bone, and is extremely hazardous. It is proposed to-day to bore holes in the bone, from one external orifice in the soft parts above the knee, where the bone is least covered, and after having thus weakened the part sufficiently, to break the bone either across the knee or by apparatus. This, too, is a hazardous operation, and may be followed by inflammation and its consequences, demanding amputation of the limb at a future day. But in the strong belief that the plan suggested may be of benefit, by affording hereafter an opportunity for bending the soft callus, so as to effect the straightening of the limb, the attempt will be made to fracture it. A compound fracture is not likely to result, but probably a simple form, requiring the usual simple treatment, by rest, position, splints, etc. Troublesome abscesses might follow the introduction of the ordinary gimlet, but one that will bring away the sawdust with it is preferred. The risk of the operation is subsequent necrosis, the lower end of the thigh-bone being very liable to that affection, and especially in the region which has been selected as the proper point for operating. This result may, perhaps, be avoided by a simple treatment, and by general attention to the health of the patient.

When the constitution is not good, the patient being of a scrofulous diathesis, or disease of the bone, as necrosis, is pre-existent, the operation should not be thought of. If the experimental mode of treatment adopted here be successful, it will doubtless be found more efficacious than the plan of Barton, and much more humane than amputation of the limb. The gimlet should be introduced on the outside of the limb, so as to avoid the anastomotic artery. From the single external orifice, half a dozen holes were bored through the bone, at different points, and after several efforts to break the bone, it

was fractured with a loud snap, distinctly audible over the whole room.

The case was exhibited at the following clinic, no unfavorable symptom having followed the operation.

REMARKS ON THE ABOVE CASES.

These cases, treated by Drs. Eve and Pancoast, are in some respects extremely gratifying. They show that the operation proposed by Dr. Brainard, in 1854, is receiving the attention which it merits in this country, and that the award of the committee of the American Medical Association, of a prize, is fully justified by the success of the method when applied in practice. The report of the case by Prof. Eve also manifests a spirit of justice and liberality altogether in accordance with his well known character. We regret to say that the same observation is not entirely applicable to the second case. Dr. Pancoast, in the report, is made to say: "It is proposed to-day to adopt a novel mode of treatment." "It is proposed to bore holes in the bone, from one external orifice in the soft parts above the knee, where the bone is least covered, and after having thus weakened the part sufficiently, to break the bone either across the knee or by apparatus."

Now, this "novel mode" of treatment is that proposed by Dr. Brainard in his essay, published in the transactions of the American Medical Association for the year 1854, in the following terms:

"Perforation of bone may be employed to weaken it in such a manner as to cause it to fracture readily at the point desired, with but a moderate degree of force and but little pain."

"The cases in which it is proposed to apply it are,"—

1. "Perfect ankylosis by bone or fibrous adhesions too firm to be separated by moderate force, and when the member is in a position to be useless."

"This method of treatment is recommended as a substitute for the following, which are now in vogue:"

1. "The operation of Barton, which consists in making incisions, sawing out a wedge of bone," etc. "Dr. Buck has

recently performed a modification of Barton's operation for bony ankylosis by resecting the articulation of the knee, an operation which I suppose may likewise be superseded by partial sub-acutaneous division of the bone."

Dr. Pancoast used a gimlet in his operation. This has been tried by Dr. Brainard, who says of it, that "it has the double inconvenience that it is liable to expose to suppuration, and that the gimlet is incapable of perforating the compact structure of bone, as any one can readily prove for himself by experience."

Dr. Pancoast, however, used a pod gimlet to bring away the sawdust. This is original. It is true, it is not difficult to make all the division requisite in this case with the instrument of Dr. Brainard, without making any dust, but if a gimlet be used, it is quite likely a pod gimlet is to be preferred.

In conclusion, we deem it but just to say that the high position of Prof. Pancoast precludes the suspicion that he should for a moment consider himself under the necessity of appropriating the ideas of others to his own use without the acknowledgment usual in such cases, but the practice, even if resorted to inadvertently, must not be allowed to grow into a habit, and thus become a precedent. We have, therefore, thought proper, at the outset, to set the subject in its true aspect, by assigning the priority there, where it is well known to belong.

ABSTRACTS AND ITEMS.

PREPARED BY THE JUNIOR EDITOR.

Dr. E. A. Morrison, of Lawrenceville, Virginia, recommends, in the *Virginia Medical Journal*, quinine as the main item of treatment in scarlatina. He has used it for thirty-five years in the epidemic form, with the most beneficial results. He gives doses of a size suited to the different ages of the patients, every three hours from the beginning of the attack, with an occasional very mild cathartic, to keep the bowels soluble, and

mops the throat with nitrate of silver in solution. He also, when the patient is old enough, recommends a gargle of red pepper tea.

IODIDE OF POTASSIUM, TO SUPPORT THE SECRETION OF MILK.

M. Roussel, the professor of clinical midwifery at Bordeaux, regards iodide of potassium as almost a specific in congested breasts during lactation. He gives it to the amount of six or eight grains a day. He thinks it suppresses the secretion and disperses the congestion with great certainty. He relates twenty cases of success, and none of failure. The above moderate amount, he thinks, does more good than larger quantities. The excessive secretion of milk may be prevented or moderated by giving it on the first or second day.—*Gazette des Hopitaux, North Carolina Journal.*

SANGUINARIA IN DYSMENORRHEA.

Dr. John D. O'Connor, of Sunfish, Ohio, in the *Lancet and Observer*, recommends the above article very highly in dysmenorrhea. His mode of administering it is to give a teaspoonful of the tincture three times a day, and a tablespoonful at bed time, commencing a fortnight before the period. If it does not succeed, he intermits its use until the same time in the next month. Observing the proper hygienic management, the remedy will succeed oftener than any other he has tried. Its full effects (which he desires to induce) are nausea, pain in the loins, extending through to the epigastric and iliac regions, as well as down the thighs.

PERSULPHATE OF IRON IN EPISTAXIS.

Dr. James F. Hibbard, of Richmond, Indiana, in the same journal, details the treatment of epistaxis by the above-named remedy. He throws an injection of a mixture formed of ten parts of water to one of the solution of the perrulphate, up the nostril from a glass syringe. He uses the solution recommended by Dr. Plummer, which is made according to the following formula, viz:

℞ Sulphate of Iron, - - ℥iiss.
Nitric Acid, - - - ℥iii.
Water, pure, - - - ℥xss.

Triturate the salt and acid together for fifteen minutes, then add the water and filter.

TRACHEOTOMY IN CROUP, VERSUS TUBING THE GLOTTIS.

It will be recollected that M. Bonchut has been urging tubing the glottis as a means of preventing asphyxia in croup. The Medical Society of the Hospitals of Paris has passed resolutions against this plan, and in favor of tracheotomy. The resolutions were offered by M. Behier. M. Trousseau says, operate (by tracheotomy) as soon as possible after formation of false membranes. M. Malgaigne thinks that we should try by all means to remove them, and upon failure to operate soon as possible. Bouillard thinks, 1st, that the surgical treatment of croup is fixed. Tracheotomy is the only proper operation. 2d. The medical treatment is to be remade. It should be, he thought, antiphlogistic. 3d. As to tubing the glottis, it is worthy of all the anathemas with which M. Trousseau has covered it.—*Gazette Hebdomadaire, from Lancet and Observer.*

GLYCEROLE OF ALUM IN ERYSIPELAS AND CHRONIC CUTANEOUS DISEASES.

The glycerole of alum is made in the following manner:

℞ Sul. alum reduced to an impalpable powder, ℥iss.
White precipitate, impalpable powder, grs. xv.

Mix; triturate well and pour into bottle, and add glycerine ℥xx. Shake the bottle until it assumes the consistence of cream.—*Presse Medicale Belge, Lancet and Observer.*

COUNTER-IRRITANTS, BY DR. THOMAS INMAN, OF LIVERPOOL, IN THE BRITISH MEDICAL JOURNAL.

1st. Counter-irritants, commonly in use, are direct irritants to the parts to which they are applied. 2d. Their acrid principle is absorbed, and acts in the milder form of a stimulant in the immediate neighborhood of its introduction. 3d. At last it enters the circulation, and affects distant organs. Acrid

blisters, 1st, near the eye do harm in the acute stages of iritis, of lithalmia, and sclerotitis. They do good occasionally, in the latter stages, when the disease is chronic. 2d. Blisters to the throat are almost invariably prejudicial in the early stages of croup. 3d. Blisters do harm in the early stages of pleurisy, pneumonia, and pericarditis. They do good in the latter stages—at that period, in fact, in which we would use, could we apply direct means, the sulphate of zinc, nitrate of silver, etc., to the inflamed parts. 4th. They occasionally do good in bronchitis, but not under twenty-four hours after the blister has risen, and probably by the absorption of the stimulating material, and direct application through the circulation to the inflamed surface. 5th. Blisters are positively injurious in peritonitis, and in all its stages. They actually produce the disease in dogs and rabbits. 6th. They are equally injurious in recent gonorrhea and orchitis, very serviceable in chronic clap and swelled testicle. 7th. Blisters to the sacrum and copaiva internally have a very beneficial influence in leucorrhea. 8th. Blisters have a decided stimulating effect on the brain in the coma attending typhus or hydrocephalus.

In other words, blisters are prejudicial when the absorption of the stimulating principle injures the inflamed tissue by direct application. They do good in such cases as would be benefited by direct stimulation.

Again, 1st. There is no difference, except in degree, between the action of caustics and counter-irritants, generally, when applied to the unbroken skin. 2d. That these substances act intensely upon the part to which they are applied; more gently, but yet severely, upon the parts below and around them, and more mildly, yet still decidedly, upon the whole system. 3d. Blisters, etc., are useful only in those cases in which stimulants would be locally applied by the surgeon if the diseased parts were on the surface of the body, or within reach of his hand. 4th. Blisters are not essentially different in their modus operandi from such stimulants as iodide of potassium, copaiva, the warm balsams, essential oils, resins, etc., except in degree. 5th. That blisters are useful (in appropriate chronic cases) in proportion to the nearness of the diseased organ to the blistered

surface. 5th. That, as a general rule, blisters have only a temporary influence; and that where they are really necessary and useful, they require to be repeated. 7th. The application of a vesicant irritant, or stimulating material, externally, involves the idea of there being local or systematic debility in the sufferer to correct, for which such stimulant is required. 8th. Counter-irritants of all kinds are physiologically incompatible with low diet, antimonials, purgatives, or other depressing remedies, inasmuch as it is manifestly absurd to stimulate locally and yet depress generally.

(To the above summary of Dr. Inman's ideas of counter-irritants, there is probably in the main not much objection, yet we think there are not many practitioners of experience who will unite with him in the proposition that they will agree in the character of their influence, and differ only in degree. We believe that each has its own peculiarities, and while they all stimulate locally and generally, each acts with more effect upon some particular tissue or organ, and that we should make choice between them as nearly as we can, in the present state of our knowledge. In many instances, of course, it may be indifferent. It is hardly probable, too, that oil of cantharides, after absorption, stimulates just like caustic potash.)—ED.

CURE OF SMALL POX IN 1306.

The learned physician, Gaddesden, at the court of Edward I., thus describes his practice in small pox: "I ordered the prince to be enveloped in scarlet cloth, and that his bed and all the furniture of his chamber should be of a bright red color; which practice not only cured him, but prevented his being marked;" and he states that he treated the sons of the noblest houses of England with the red system, and made good cures of all."—*Strickland's Lives of the Queens of England.*

BOOK AND PAMPHLET NOTICES.

A Treatise on Fractures. By J. F. Malgaigne, Chirurgien de l'Hopital Saint Louis, Chevalier de la Legion d'Honneur et du Merite Militaire de Pologne, Membre de l'Academie Imperiale de Medicine. With one hundred and six Illustrations. Translated from the French. With notes and additions, by John H. Packard, M.D. Philadelphia: Lippencott & Co. 1859.

The distinguished and indefatigable Malgaigne could hardly give the profession an ordinary work on surgery. His profound learning, almost unlimited experience and tireless industry, have made him one of the greatest lights in the science of surgery, and spread his name all over the whole civilized world as such, and the profession would be disappointed if this treatise was not an excellent one.

His book will not only sustain his already well earned reputation, but very greatly advance it; indeed it is a monument that must last as a perpetual mark of honor to his memory. Dr. Packard has executed a difficult task of translating and anglicising it in an admirable manner, and deserves, as he no doubt will receive, the thanks of his medical brethren.

No man who practices surgery can so easily and perfectly accomplish himself in the mechanical surgery of the bones as becoming thoroughly acquainted with the teachings of M. Malgaigne through his treatise on fractures. It is for sale at S. C. Griggs & Co., 39 and 41 Lake street. Pages 683.

Mind and Matter; or, Physiological Inquiries, in a Series of Essays, intended to Illustrate the Mutual Relations of the Physiological Organization and the Mental Faculties. By Sir Benjamin Brodie, Bart., D.C.L., Vice-President of the Royal Society. With additional notes by an American editor. New York: S. S. & W. Wood, 389 Broadway. 1858. For sale by S. C. Griggs & Co., 39 and 41 Lake street.

In this little semi-professional gem, Sir Benjamin shines with the lustre of a true philosopher as he is. One can hardly tell which to admire most, the science, deep philosophy and literary beauty of the work, or the graceful modesty with which the author continues to clothe his authority. In his broad and comprehensive view of the connection of mind and matter, he sees in the brain, the organ of the mind, the medium through which mental phenomena are manifested, and, like Rev. Doctor

Butler, is of opinion that in animals generally it performs the same office, that in proportion to the perfection of its organic size and structure will the perfection of mental manifestations be. No book we have ever had the pleasure of perusing is calculated to afford a more pleasant enjoyment than this. The mind is carried through difficult philosophical problems with such gentle and even progression that the reader is not aware of having passed over some of the most rugged physiological abstracts, until he is emerging from what may have seemed before a mass of confusion, with clear perceptions of one of the most sublime subjects. The theme is worthy of such a pen, and the writer has done honor to the theme. The weight of the doctrine and arguments in these treatises on mind and matter must be felt in future labors in the same direction. Pages 260.

THE UREMIC CONVULSIONS OF PREGNANCY, PARTURITION AND CHILDBED. By Dr. CARL R. BRAUN, Professor of Midwifery, Vienna. Translated from the German. With notes by S. Mathews Duncan, F.R.C.P.E, Lecturer on Midwifery. etc. etc. New York: Samuel S. and William Wood, 389 Broadway. 1858. For sale at S. C. Griggs & Co., 39 and 41 Lake street. Pages 182.

The translator informs us that this is a translation of a single chapter of Dr. Braun's new text book of midwifery. Dr. Braun has brought to the task which he has so thoroughly performed, the erudition, science, patience of research, and untiring perseverance which characterise our German professional brethren. He thinks *eclampsia puerperitis* is a consequence of *nephritis diffusa sen albuminosa* arising from pressure of the gravid uterus upon the veins. Thus connected, nephritis-toxemia, or uremia and eclampsia. The urine is generally acid in reaction, as shown by the proper tests, and when boiled or mixed with nitric acid, throws down a precipitate of albumen; fibrin cylinders are quite abundantly observed through the microscope, and occasionally blood corpuscles; urea is much diminished, and sometimes wanting in this secretion. Often at the time of the convulsions, there is a partial or complete suppression and tenderness and pain around the loins. Pressure over the kidneys firmly made on strong percussion causes the patient to wince even when quite stupid. So far as morbid anatomy is concerned, there seems to be no peculiar lesions of the nervous

centres, except in apopletic cases, which are rare compared to the whole number. Nor will the appearances in any of the other organs account for the symptoms besides the kidneys. The kidneys are almost always found more or less hyperæmic, and often in a state of actual inflammation, "acute Bright's disease" in one of the three stages, congestion, effusion, or degeneration. To sum up: according to Dr. Braun, the uterus presses upon the veins, retards the flow through them, dams the blood back upon the kidneys, induces congestion, prevents the secretion of urea, and other excrementitious substances, causes them to be retained in the blood, thus induces toxemia, and presses out the albumen from the serum of the blood through the delicate walls of the capillary vessels. The thin watery condition of the blood permits the effusion of serum into the areolar tissue of the extremities, and sometimes of the lungs. The retained urea is probably converted by decomposition in the blood into carbonate of ammonia, which is highly poisonous, and, circulating through the nervous centres, enhance their excitability to such an extent, as to give origin to convulsions, upon the application of slight causes. One author attributes the great mortality of the children born during puerperal convulsions to the carbonate of ammonia circulating in the blood of the mother getting into the vessels of the fœtus. We are disposed to attribute much more influence to congestion of the brain produced by pressure upon the aorta, and consequent daming back the blood upon the head and upper extremities, in causing convulsions, than the Dr. Braun cerebral hyperemic in connection with uremia, and perhaps often alone. The fits cease in 37 per cent., become measles in 31 per cent., and continue with unabated severity in only 32 per cent. of the cases that occur before delivery of the child. They seem to induce premature labor in 25 per cent. Dr. Braun also thinks that sometimes the health of the child is affected by nursing the milk of a mother who has suffered from eclampsia. About 30 per cent. of cases of puerperal convulsions terminate fatally.

The prophylactic treatment consists first in measures calculated to keep the tubuli as clean of fibrinous obstructions as possible by copious diluents and gentle diuretics, and to neut-

ralise the carb. of ammonia in the circulation by the use of benzoic acid, lemon juice or tartaric acid, vinegar injection (and acid baths—Ed.) All these means, however, are but palliatives; nothing but the termination of pregnancy, which is the cause, can cure the disease. The question as to the propriety of inducing artificial delivery, then, would naturally suggest itself, but it should not be attempted until symptoms of toxemia are sufficiently grave to threaten life. They are the only two indications for interference. To obviate congestion of the head, costiveness should be prevented by vinegar injections, aloes, jalap, etc.

The medical treatment of eclampsia during pregnancy, parturition, or childbed, is the same. The first indication is to diminish the reflex excitability, and thus ameliorate the paroxysms as much as possible, until rational or curative means can be instituted. One of the best, if not the best, is chloroform. The chloroform narcotism should be induced immediately upon the first appearance of the premonitory symptoms of the paroxysm, and kept up until quiet sleep is brought about. Dr. Braun states that sixteen cases of eclampsia occurring in succession, treated by chloroform and acid, complete recovery took place. To moderate the secondary congestion of the head, cold water poured from a height is the most effectual, sponging the skin with tepid vinegar brings about a very desirable diaphoresis, and should be frequently resorted to.

Dr. Braun is decidedly opposed to bleeding, unless in very plethoric patients, and then to quite a moderate extent. In this respect we decidedly disagree with him. Theory and experience both, we think, justify copious and prompt bleeding. Aside from the fact that we believe *congestio cerebri* is in many instances the main cause, we think, that if secondary, it calls for venesection when it does not exist, and that, if inflammation of the kidneys is the first and main pathological lesion, no means are calculated to relieve it than depletory. It must be acknowledged, however, that sixteen consecutive cases recovering cannot be regarded as accidental. Benzoic and vegetable acids, and much cold drinks, should be given constantly. During the paroxysm, no more restraint is necessary than merely to

keep the patient from injuring herself by rolling off the bed, biting her tongue, etc. All agree that, if the os uteri is open sufficiently to allow the application of the forceps, it is best to extract at once, in cautious manner. If the os is not wide open, but dilating pretty rapidly, Dr. Braun would rupture the membranes, and allow the liquor amni to escape; if the convulsions do not cease, then the os should be further dilated with the fingers.

Dilation should be done thus under the influence of chloroform. If the head does not advance, and the paroxysms continue, the long forceps should be applied, and the head delivered.

On account of eclampsia alone, without any obstetrical disproportion of the pelvis, craniotomy should not be performed, nor should podalic version be performed, unless there is malposition, or obstetrical disproportion. Where there is no advance in labor, no dilatation of the os uteri, and it is desirable to deliver, the best way is to arouse uterine action, and dilate the os uteri.

The first may be done by passing a flexible catheter up into the uterine cavity, between the membranes and the walls of that organ, and allow it to remain long enough to induce contraction, and at the same time to keep the vagina in a state of distention, by inflating a gum elastic bag within its cavity. The latter expedient will dilate the os uteri pretty rapidly, and if allowed to remain two or three hours, will complete it sufficiently to allow the passage of the head. The passage of the elastic catheter between the membranes and the uterus for some distance is more efficient than rupture of the membranes. As before remarked, he deprecates forcible delivery by turning, thinking it never necessary, and often injurious. As they occur during pregnancy, before parturation has begun, nothing but extremity of danger from violent and frequent recurrence of the paroxysms would justify us in artificial deliverance. In such case catheterism and the use of the gum bag would be the best means. After delivery, the treatment of convulsions should be of that rational character above indicated. We would submit that in such cases, in addition to the acid diluent

and diuretic treatment, bath and injections of vinegar, that cupping, fomentations to the loins, cold to the head, cathartics of croton oil, and venesection, should be used. We should have stated that Dr. Braun is an advocate, in addition to the use of chloroform, of large doses of opium, particularly when the chloroform abates in its controling effect. We have made the above curt abstract of Dr. B.'s little but excellent book, to give our readers some idea of its depth and thoroughness, hoping that it may incite to further examination of this very important subject, and we can assure them that they can best do so by attentively studying his essay.

Of Nature and Art in the Cure of Disease. By Sir John Forbes, M.D., D.C.L. (Oxon), F.R.S., Fellow of the Royal College of Physicians; Physician to the Queen's Household, etc. etc. From the second London edition. New York: Samuel S. & William Wood, 389 Broadway. 1858.

The perusal of Sir John's book is well calculated to lead to sober reflection as to the value of the various procedures of medication practiced at the present day. It is well occasionally thus to be brought to a stand while rushing with Young America speed through the various remedial measures being introduced, and inquire whether nature has not been injudiciously ignored in all our calculations as to the effects of remedies. This is plainly the opinion of Sir John Forbes. His is the position of conservatism, originating in the ripe experience and erudition of the writer, and, although we think he underrates the value of our medical art, and over-estimates the efforts of nature in the cure of disease, we believe that much very valuable advice is contained in the teachings of this book, and recommend it to the profession for mature consideration.

NEW JOURNALS.

Louisville Medical Gazette, a semi-monthly, by Dr. L. F. Frazer; *The Semi-Monthly Medical News*, published in Louisville, by Professors S. M. Bemiss and J. W. Barron, of the University of Louisville; and *The Marysville Medical Gazette*, of California, published by Lorenzo Hubbard, M.D., and H. W. Tred, M.D.

We wish all the above enterprises abundant success, and shall

be happy to welcome the journals to our table as exchanges every time they are issued.

The January and February numbers of the *London Lancet* have been received. As usual, the matter contained in them is select, varied and abundant. A library almost, as well as a chronicle of the times, it deserves more general patronage throughout the West particularly. A file of the *Lancet* for several years is a mirror of the profession in London, invaluable as a work of reference. The February number is embellished with an admirable likeness of Sir Benjamin Brodie.

Braithwaite's Retrospect.—Part 38 is at hand, with its encyclopedia contents, garnered from all parts of the world. How could we do without *Braithwaite's Retrospect*, or *Rankine's Abstract*, these times of the countless valuable, as well as valueless productions with which our periodicals teem? Much that ought never to be forgotten would pass into oblivion, were it not for the faithful collection and record made in these excellent abstracts of medical knowledge. Among the many great improvements made in medical teaching in the quarter of century just past, this is not the least, and we would urge medical men who desire to keep pace with the rapid march of the profession, to take both of them. They cost almost nothing compared to their value. A single number will give information that will pay more than two per cent. a month on the investment of a year's subscription, in cash, to say nothing of the reputation gained by the practice of their excellent teaching.

TRANSLATIONS BY DR. E. L. HOLMES.

PATHOLOGICAL CHEMISTRY.

INFLUENCE OF DIFFERENT BEVERAGES UPON THE ELIMINATION OF COMMON SALT, UREA AND SUGAR IN DIABETIC URINE.

From the "Allgemeine Medicinische Central Zeitung."

Dr. Rosenstein has investigated the manner in which various articles of drink influence the elimination of salt, urea and sugar in diabetes, because he believed the most important means of treatment to be found in the diabetic regimen of the patient; he has arrived at the following results:

1st. After the use of coffee, the elimination of salt and sugar was, on the average, increased, that of urea diminished.

2d. By the use of Bavarian beer, the elimination of salt was considerably increased, that of urea somewhat diminished, and that of sugar also increased, though in a less degree than by the use of coffee.

3d. After the use of wine, of which Dr. R. administered three different varieties, chosen in reference to the amount of alcohol they contained (Bordeaux having the largest, Madeira a less, and pure St. Emillon the least per cent. of alcohol), the elimination of salt was scarcely increased, of urea scarcely diminished, and that of sugar increased. Still the latter was smaller, in proportion as the amount of alcohol in the wine was greater.

4th. By the use of tartaric acid, the elimination of salt was but little increased, that of urea decreased, and of sugar increased.

5th. During a moderate febrile condition, the elimination of salt was normal, that of urea (although increased in proportion to the whole amount of urine), was diminished, and that of sugar much diminished.

In reference to temperature, the observations show: 1st, that the animal heat of the (diabetic) patient is less than that of health; 2d, that there is no observable relation between temperature, and frequency of pulse and respiration; and, 3d, that during a general febrile condition, the temperature is

higher than that of a healthy person.—*Virchow's Archiv. of Pathological Anatomy, Physiology, and Clinical Medicine*, xiii. 4, 5.

MEDICAL CLINIC.

ÆTIOLOGY OF PARENCHYMATOUS NEPHRITIS.

From the "Allgemeine Medicinische Central Zeitung."

Dr. S. Rosenstein has become convinced, after a long series of observations, that the various symptoms which appear in Bright's disease are, in a very small number of cases only, evidence of primary lesion, but very much oftener the result of a peculiar diathesis, whose character is marked either by a mechanical obstruction of the circulation, or far more frequently by inaction in the function of nutrition and elimination, as also by diminution of the solid portions of the blood.

More especially has Dr. R. observed affections of the kidneys after intermittent fever, in which they appeared after long continued attacks, as results of an impoverished condition of the blood, following affections of the spleen, and also after depositions of coloring matter, the relation of which as a symptom of obstructed renal circulation has been shown by Frierich. Dr. R., however, considers the first cause as by far the most important, since cases of marked anæmia with less deposition of coloring matter, show clear lesions of the kidneys, while long continued albuminuria, associated, however, with unimportant anatomical changes of the epithelium, only are observed in melanæma. In those cases of intermittent, in which the perspiratory symptoms failed to appear in the paroxysm, the inaction of the skin was evidently of great significance, since diaphoretics often gave relief. The case next in importance was found in valvular disease of the heart, and diseases of the arterial walls, especially atheromatous formations, since these affections, unless their effects were counterbalanced by dilation and hypertrophy of the heart, produce passive and active renal hyperhæmia, which finally terminates in Bright's disease; yet there are cases in which the cause cannot be traced to mechanical obstruction.

Those conditions of the lungs also, in which there is an ob-

structed circulation, induce nervous renal hyperhæmia, and with it, temporary albuminuria, seldom, however, Bright's disease; and yet, Dr. R. would not cite these conditions as absolute causes, since eleven per cent. of the cases only, which fell under his observation, admitted of such an explanation. Ætiologically, and also numerically considered, those cases should be classified as tuberculous, in which long suppuration of the bones induces grave constitutional disturbance of nutrition, as a reflex of which we observed the renal affection. Certain surgical operations, particularly amputations, cause Bright's disease, not, as Siebert supposed, from any connection with lesions of the cuticular nerves, or with the situation (high or low) of the operation, but from some previous lesion, or from abnormal conditions developed after the amputation, as irritative fever, and suppuration, in the origin of which, loss of blood is of great influence. In pregnancy and the puerperal state, which give rise to renal difficulties, we should bear in mind the physiological impoverishment of the blood in solid portions, and also the mechanical obstruction of the renal veins. Next in frequency, Dr. R. observed the affection after cholera, typhus, and scarlatina, in each of which diseases it appears in five per cent. of the cases. In scarlatina the disease commences with capillary apoplexy and "croup" of the tubuli uriniferi. In typhus, the disease commences with catarrhal, and terminates with pseudo-membranous and parenchymatous inflammation, although the process terminates not unfrequently with simple catarrh. It commences at the end of the first fortnight, and is no serious prognostic symptom. In respect to the histology of the process, we must distinguish nephritis after scarlatina, from nephritis following typhus and cholera, a distinction based naturally upon the cause, since nephritis in these two affections is to be regarded as secondary, while in scarlatina it seems to be a local manifestation of the disease itself, as for example, ulceration of the bowels in typhus abdominalis. As in typhus, catarrhal becomes the cause of parenchymatous nephritis, in those cases, in which the excretion of urine is checked by catarrhal inflammation of the tubuli, so the same process is carried on (in the respective organs) in vesical catarrh, in strictures

and in hypertrophy of the prostate.—*Virchow's Archiv. for Pathological Anatomy, Physiology, and Clinical Medicine*, xiv. 1, 2.

A NEW APPARATUS FOR THE EXTENSION OF FLEXED KNEE JOINT.

BY DR. EULINBURG, HEALTH COMMISSIONER OF BERLIN.

An Address at a Meeting of the Association of Berlin Physicians, June 30, 1858. From the "Allgemeine Medicinische Central Zeitung."

The important progress which has been made since the time of Stromeyer in the treatment of articular contractions, is well known. By means of manual force (Brisement force alone), without previous division of tendons, we now reduce joints instantaneously, which have remained flexed for years. Yet cases have presented themselves to me, and, as we all know, to other physicians, in which this forcible extension has not terminated favorably. We have occasionally, with the consent of skillful colleagues, used our utmost strength, without gaining more than the simple laceration of the fibrous thread or cord-like tissue, produced around the bony structures of the joints, by the morbid processes of disease, which materially limit the degree of motion. In these cases, however, by the application of "Brisement force," there was always marked improvement. Mindful of the frequent and satisfactory results of this treatment in cases of apparent ankylosis vera, I am far from applying to it the epithet, "true work of an executioner," as given by some surgeons, especially by Lorinser, and am far from considering it as never justifiable.

On the contrary, I gladly employ this treatment in suitable cases with energy, and yet with due prudence, in order to attain our object without any possible injury. Any one of course would use care, who has once experienced unfortunate results; among which, though by no means the most unpleasant, I will mention a simple fracture above or below the ankylosed joint, as it happened to me in my practice some years since.

We have accounts of much worse accidents, in the practice of Louvrier for instance (Bonnet, Traite de therapeutique des maladies articulaires, Paris, p. 395), in which comminuted fractures and ruptures of the vessels and nerves occurred, which

rendered amputation necessary, and which, without amputation, occasionally resulted in death.

Under such circumstances, I am of the opinion that there are cases of anchylosis in which, 1st, Brisement force cannot be employed with good results; and 2d, in which it ought not to be employed at all. In respect to the first category, I will only refer to cases of enlargement of the osseous portions of the joints, which is often an insurmountable objection to violent and complete extension. I frankly acknowledge, that, in such cases, when I have thoroughly reduced the joints, under the full influence of chloroform, I have often been obliged, in consequence of subsequent inflammatory action, to relinquish the advantage gained during anæsthesia, to combat the effects of the violent operation. On the other hand, we should not press with too much violence this treatment in cases in which the original disease still exists, or has only apparently run its course, and in which the new injury is in danger of rekindling the slumbering disease.

In such cases, gradual force is indicated, both in the commencement, and also as termination of the treatment after "Brisement force."

Since the introduction of the "endless screw" (worm), we have possessed an excellent apparatus for gradual extension, and yet I have not always found the apparatus adapted to every indication. There was still wanting an apparatus, which, with the advantages of an easy, regular, and gradually increasing power, would be competent to overcome the resistance caused by the ankylosis.

I believe that the improvements which were demanded by the old forms of apparatus, are found in my own. Instead of the two tooth wheels, which, in the common apparatus of Stromeyer, were set in motion by a key attached to an "endless screw," and instead of a single screw, running lengthwise, which, in Lorinser's apparatus, and that of Palasciano and Bonnet, was also set in motion by a key, I have used one spindle (or long screw) on each side. I have united these two spindles, near the joint, by means of a shaft, to which are attached a couple of "endless screws" (playing into the

threads of the spindles), and turned by a crank. By turning this crank, the spindles cause the two portions of the apparatus, to which are attached the diseased limb, by means of padded splints, either to bend or extend at the will of the operator. In order that the apparatus may be used for either limb, I have made the crank movable, so that it can be applied to either side of the shaft, to suit the patient's convenience.

The good qualities of this apparatus are:

1st. The extraordinary ease of manipulation in attaining the desired object.

2d. The equality and perfect command over the speed of its motions.

3d. Its almost unlimited power.

4th. Its equally advantageous application for flexing a limb, ankylosed in an extended position.

5th. The application of the apparatus in producing passive flexion and extension of a limb already rendered movable, in which case the apparatus supplies gentle force in addition to the voluntary force of the patient himself.

6th. The use of the apparatus by the patient himself, either with or without assistance.

7th. The ready construction of the same into a portable apparatus, which cannot be said of Lorinser's or Palasciano's and Bonnet's apparatus.

For these reasons this apparatus is to be used with benefit:

1st. For treatment of flexed joints and straight ankylosis. In cases of the latter affections the old apparatus was wholly inapplicable. "Brisement force," however, I consider as contradicted in cases of ankylosis of the extended limb, since the subsequent inflammation may easily induce permanent flexion, which is really a still worse condition.

2d. For subsequent passive motions, which, in maintaining the advantage already gained by the extension, is of great benefit in keeping up flexibility of the joint. By this means we prevent a new ankylosis.

3d. For prevention of contractions and ankylosis in all morbid processes, in which such results are to be feared.

4th. For applying "Brisement force" (patient being under the influence of chloroform) in such cases in which the strength of the operator is insufficient, or in which there is danger of fracture in a wrong place, which, with this apparatus, cannot easily happen, since the fulcrum is exactly at the joint, and the force is applied equally to the whole limb.

Finally, I would say that the principles of this apparatus are applicable to contractions and ankylosis of all other joints, especially of the elbow, to which we formerly applied other forms of apparatus.

EDITORIAL.

TO THE SUBSCRIBERS FOR THE CHICAGO MEDICAL JOURNAL.

Having resigned my connection with Rush Medical College, and transferred the *Chicago Medical Journal* to Prof. Daniel Brainard, notice is hereby given that all letters, communications, remittances, etc., designed for the *Journal*, should be sent directly to him, he being duly authorized to receive all unpaid subscriptions.

To the many patrons of the *Journal* who have promptly paid their dues, and often added thereto valuable contributions on various topics, we owe many thanks, and hope they will continue the same cordial support to our successor.

N. S. DAVIS.

TO THE SUBSCRIBERS AND PATRONS OF THE CHICAGO MEDICAL JOURNAL.

Our appearance before you, at the present time, in the capacity of editor, seems to call for some words of explanation, as well as the usual announcement of views and plans for the future.

Circumstances, needless to enumerate, have determined our late colleagues in Rush Medical College, the editors of this journal, to withdraw from that institution. The *Journal* has

always been in a degree recognized as the organ of the Faculty, and as an essential part of the system of education planned at the time of its organization. They could not be separated without an essential derangement of these plans, thus far successfully carried out. It became necessary, therefore, for the present editor to assume his former relations to the *Journal*, or relinquish the full consummation of those wishes which have for twenty years been the cherished objects of his life.

This periodical, under the title of *Illinois Medical Journal*, was first issued in the name of Prof. Blaney appearing as editor; but the active co-operation of other members of the Faculty, and the great favor with which it was received by the profession, soon raised it to a high degree of prosperity, and placed it in point of circulation among the first medical journals of this country.

It subsequently passed into the hands of Prof. Evans, under whose efficient editorial charge its popularity was sustained and increased. Since it passed from his hands, its subscription list seems to have been decreased in numbers about one-half, although it still has a wide circulation.

In taking charge of it, the present editor indulges the hope of being able to restore it to its former prosperity. The enterprise, at its first announcement, was regarded as visionary and premature. The country was new, there were no roads, few villages, no cities, and physicians were "few and far between," yet the enterprise met with favor and was crowned with success.

At the present time, everything is changed for the better. Railroads have been built, cities erected, physicians are numerous, and comparatively wealthy. It cannot, therefore, be doubted that the same efforts which first gave value to the *Journal* will restore it to its former state of prosperity.

These efforts will be directed to the making it useful and interesting to its readers, an end to be attained only by publishing what is new and important in a scientific and practical point of view, and excluding all discussions of a personal nature, speculations of a purely theoretical character, and dull, worthless matter generally.

In the department of original articles, arrangements have

already been made for securing the assistance of some of the best observers and writers in the State, and the continued aid of all former contributors is most particularly solicited.

For selections, in addition to the exchanges—journals of this country—we have made arrangements for receiving regularly three of the leading journals of Paris, and two of those of London. We expect to complete arrangements for having translations from the German of such articles as are of particular interest.

All valuable medical books, issued from the press in this country, and many of those of Europe, will be noticed in such a manner as to give our readers a just idea of their character and contents, so as to enable each to judge for himself if a work is adapted to his wants.

Finally, items of news, local and foreign, will be carefully gleaned for its pages.

Such is the programme which we offer, and in its fulfilment no pains shall be spared on our part. We cordially invite the aid and co-operation of the patrons of the *Journal*, and all scientific physicians, in efforts to render it valuable and extend its sphere of usefulness.

RUSH MEDICAL COLLEGE.

It will be observed by the notice in this number of the *Journal*, that Professors Johnson, Davis, and Byford have withdrawn from the faculty of Rush Medical College. Of the reasons which have induced them to take this step we do not propose to speak at present.

In behalf of the remaining faculty, we deem it proper to say, that the organization and efficiency of the college will not suffer any diminution, and that the means of teaching, for the future, will be rather increased than lessened, by the effect of this withdrawal.

The selections for filling the vacant chairs have not yet been made, but, from the eminent and capable gentlemen who have already intimated their willingness to accept, the Board of Trustees will only have the embarrassment of a choice. For clinical teaching, the college dispensary will be continued dur-

ing the entire year, students will have access to the Marine Hospital during the winter session, and whatever other facilities for hospital instruction the city may afford, will be open to them.

The present plan of conducting the course of winter instruction will not be essentially changed, unless by concert with other medical schools. A preparatory department will be organized for the summer term, in which the active and younger members of the profession of the city will be enlisted. Good instruction throughout the year will thus be secured.

Pointing with satisfaction to her history and her eminence, Rush Medical College will not falter nor swerve from that course of usefulness which she has hitherto preserved.

☞ The present proprietor of the *Chicago Medical Journal* is desirous of securing the services of an assistant editor. To one competent and with some experience, the situation would be advantageous.

MISCELLANEOUS.

THE WHITNEY CASE.

We copy the following from the March number of the *Virginia Medical Journal*, in regard to the celebrated Whitney case:

"The medical profession of New York, and indeed the public generally, have been in a state of very considerable excitement for the past few weeks, caused by the sudden death of Mr. S. S. Whitney, the only son of a well known millionaire, under peculiar circumstances. The newspaper press of that city being in want, just then, of anything likely to interest and excite their readers, seized upon the opportunity afforded them of making some good paragraphs, and inasmuch as the Whitneys had money—the one thing needful in Gotham—and the causes of death admitting of very considerable difference of opinion, the

whole affair has gained a notoriety, reflecting but little credit upon any of the parties concerned. But for the poor man's money, he would have gone to a quiet and unnoticed grave; the doctors would have never fought over his diseased carcass, and the public would have been ignorant of his dissipations and follies. But a patient worth a *million* cannot be parted with so easily; and thus the jealousies and squabbles of the profession have been laid before the public.

"Mr. Whitney, a man of irregular habits, weakly constitution, and capricious temper, having broken himself down, as fast young men do frequently, becomes a confirmed invalid; and as there was phthisis in the family, he presently finds his way to Dr. Horace Green.

"This gentleman has been for years levying a tribute upon that large class of sufferers, who are marching along the slow but certain road, which begins with consumption and ends with the grave. He is the gentleman who revived the old practice, which had never received much attention, of attempting to cure affections of the throat by the local cautery; and as the idea has much merit in it, a reputation was soon made with a certain class of patients. Clergymen, especially, said to have lost their voices from over-work, flocked to him in numbers, with purses filled by fond congregations; and as these patients generally had *follicular pharyngitis*, the result of good dinners, cigars and lazy habits, Dr. Green had an easy task before him. A professor in a medical school speaking an hour every day, or a lawyer talking all the time, rarely complains of that affection, called *clergyman's sore throat;* and yet they use their organs of voice much more constantly. The disease is often a secondary affection, beginning with the stomach—to be cured by traveling, change of diet, and the local treatment.

"Dr. Green, however, made a good thing of this practice, and deserves credit, in our opinion, for calling attention to a method of treatment not without value. In his next movement in the same direction, there was also much to praise. He proposed to introduce caustic solutions through the larynx into the trachea, in cases of croup and laryngitis, both acute and chronic; and while some may doubt whether he really

does pass his *probang* between the vocal chords as often as is claimed for him, yet certainly the fluid does pass, and is productive of benefit.

" The next step, however, was still more daring. Dr. Green proposes to *catheterize the trachea*, and inject the solution of caustic into the cavities of the lungs; and this startling proposition has drawn to his consultation rooms many patients, who, having death before their eyes, desperately resort to any one who promises a cure.

" Mr. Whitney seems to have been one of these persons. He goes to Dr. Green, knowing what his treatment was; submits to all his applications; and one day after his visit, he goes home, declares that Dr. Green has killed him; sends for Drs. Mott and Beales; and after a week of suffering with dyspnœa, accompanied with emphysema of the neck, face and thorax, he at last succumbs. Dr. Green is not present during this time, having been discharged with ignominy, and the two gentlemen who succeeded him did not insist on his presence. Even at the post mortem he was not permitted to have a hearing; and the whole city of New York conclude that an abscess formed in the pharynx was made by his caustic, and a cavity in the lung, which had been opened through the pleuræ into the cellular tissue, and caused the emphysema, was a puncture with the point of the instrument.

" Dr. Green and his friends rally to the rescue, and the affair is brought before the Academy of Medicine. Then comes a grand set-to. Every body says something; gives an opinion; proposes a theory. Mr. Whitney is killed in a half dozen ways. Charges are made and denied; and at last, exhausted of their venom, all parties agree to pass a resolution unanimously declaring that Whitney died because his time had come.

" What a lesson can be drawn from this whole controversy, showing the absolute necessity for the most stringent and inviolable rules to govern the profession in their intercourse with each other.

" Dr. Green was either a charlatan or not. If he deceived and pillaged the public, and risked wantonly the lives of his

patients, he ought to have been cut by the profession, turned out of the academy, and not regarded as a physician.

"But if Dr. Green was held in full fellowship, he had a right to be defended by his brethren. No one ought to have taken charge of Whitney without his knowledge; and he certainly had the indefeasible right, in common justice, to have witnessed the autopsy.

"Why should Whitney or his friends complain of a practice to which he knowingly resorted? Dr. Green makes no secret of his procedures; and under the circumstances it was entirely wrong in any physician to take charge of the case—still worse, to express opinions derogatory to the character of an absent brother. If any other course is allowed, there will be no end to Whitney cases. Every death will be brought up against us, and post-mortems, controversies and suits for malpractice will fill up our time. If a man is a quack, and a credulous public choose to patronize him, let them die on his hands. If he is honest, candid, and fairly endeavors to administer the benefit of the art to the sick, he can do no more, and his brethren should stand by him, and shield him from censure.

Draw the lines which divide the true physician from the unworthy pretender, as strongly as possible. Require every member to submit to the rules and discipline necessary for self-protection, and sternly carry these principles into effect. It is the only way to get rid of the dishonest practitioner. Any other course leads to disgrace and confusion, and our honorable calling is made the laughing stock of the world.

At the last annual meeting of the State Medical Society, the undersigned was appointed Chairman of the Committee of Surgery, whose duty it is to report at its next annual meeting, to be held at Decatur, June 7th, 1859. "On all the important improvements in the management of surgical diseases effected in Illinois during the year."

Being desirous of making the report as full and complete as possible, he takes this opportunity of requesting the profession

of the State to aid him in the same, without which the report cannot be anything but imperfect.

Let every physician in the State, therefore, who has anything new or interesting, either in the science or art of surgery (and every one must have something), enclose the same, carefully prepared, to the undersigned, on or before the 1st of May next.

Especially statistics and reports of operations, viz.: amputation, lithotomy, etc., will be gladly received.

All matters received will be duly accredited to the author.

EDWIN POWELL.

THE undersigned was appointed Chairman of the Committee on Obstetrics and Diseases of Women and Children, at the Rockford meeting of the Illinois State Medical Society, in June last. Being desirous of eliciting the aid of the profession in the State in making a report on these important subjects, he takes this method of requesting physicians who may have any original information relative to them, or interesting and rare cases, to send it to him by the 1st of May next. Any matter thus furnished will be duly accredited to the author, and thankfully received. Communications of this kind may also be addressed to Drs. D. W. Young, of Aurora, Ill., and H. Noble, Independence, McLean Co., Ill., his associates on the committee.

W. H. BYFORD.

Chicago, Feb. 19th, 1859.

AMERICAN MEDICAL ASSOCIATION.

The twelfth meeting of this association will be held in Louisville, Ky., on Tuesday, May 3d, 1859. The secretaries of all societies, and other bodies entitled to representation in the association, are requested to forward to the secretary, S. M. Bemiss, at Louisville, correct lists of their delegations as soon as they may be appointed.

The convention of teachers, invoked by a resolution of the National Association, for the purpose of a general conference

upon the best means of elevating the standard of medical education in this country, will meet on Monday, May 2d.

Medical journals throughout the United States, are requested to insert the above. S. M. BEMISS,

Secretary Am. Med. Association.

INTERMURAL INTERMENTS,

In the city of London, have, under the act of Parliament, regulating the subject, almost entirely ceased. Most of the graveyards are now closed, and the remainder will, by law, soon discontinue to be used for interments.

DEATH OF DR. MUTTER.

The late Philadelphia journals announce the death of Thomas D. Mutter, late Professor of Surgery in the Jefferson Medical College. Dr. Mutter, it is well known, has been in ill health for some years. A few months ago, he returned from a European tour, which he had taken for the benefit of his health, and has been spending a portion of the winter in the South, on the same account. He died at Charleston, S. C. He was about sixty years of age. The news of his death will cast a gloom over a very large circle of professional friends in all parts of our own and in other countries who have sat under his teachings.

AMPUTATION AT THE HIP JOINT.

This operation was performed by Professor Brainard, Feb. 24, 1859, for necrosis of the femur, extending from the knee joint to the cervix. The patient died eighteen hours after the operation.

Professor Paul Eve, in his report to the American Medical Association for 1851, notices the following cases of this amputation, which had then been reported in the United States:

1. By Dr. Mathew Beashea, of Beardstown, Ky., successful.
2. By Dr. Mott, for necrosis of femur.

3. By Professor Brainard. Patient recovered, but died from return of the disease, which was enchondroma.

4. By Professor Wm. Van Buren. Successful.

5. By Professor May. Successful.

6. Drs. Richards and Clagett, of Maryland. Successful.

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August, 1858.

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Digitaline.....in bulk
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" .....Bottles of 100 Granules
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Extract of Belladonna.....in bulk
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" and Powder of Belladonna.....in bulk
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" Hyoscyamus .....in bulk
" " Bottles of 100 Granules
" Ipecac.....in bulk
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" Opium.....in bulk
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Colchicum (each granule is equal to 2 drops of Tinc.).....in bulk
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Carbonate of Manganese and Iron.....in bulk
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Kermes, 1-5 grain..... .....in bulk
" " .....Boxes of 80 Dragees
Santonine, ½ grain .....in bulk
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Bi-Carbonate of Soda, 4 gr. each.....in bulk
" " Bottles of 130 Dragees
Magnesia and Rhuburb, 1 gr. of each...in bulk
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Comp. Calomel, Plummer's Pills, 3 grs. "
Blue Pills, 3 grains..... "
Opium Pills, 1 grain..... "
Calomel Pills, 2 grains..... "
Opium et Acet. Plumb, each 1 grain.... "
Extract of Rhatany, 1 grain..... "

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" Cubebs, pure.....in bulk
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" " Rhatany and Iron.....in bulk
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Irisin,	Iris Versicolor,	1 00
Jalapin,	Ipomœa Jalapa,	1 00
Juglandin,	Juglans Cinerea,	0 75
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THE CHICAGO

MEDICAL JOURNAL.

VOL. II. APRIL, 1859. No. 4.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE TREATMENT OF CHRONIC HYDROCEPHALUS BY INJECTIONS OF IODINE.

BY DANIEL BRAINARD, M.D., PROFESSOR OF SURGERY IN RUSH MEDICAL COLLEGE.

In the winter of 1850, I published the report of a case of hydrocephalus, treated by iodine injections, which, although it eventually terminated fatally in the usual way, was yet sufficient to demonstrate the harmlessness of the treatment employed, and its value as a palliative. Since that time, another case has been treated by the same method with success.

These, it would seem, ought to be sufficient to remove all doubts concerning the propriety of resorting to this method of treatment in favorable cases. Still so large a proportion of the profession continue to regard it as a curious experiment, or a rash and dangerous operation, and in either case unjustifiable, that I have thought it best to group together the reasons which induced me to venture upon, and afterwards recommend it. These reasons are founded in analogy, the nature of the disease,

the insufficiency of other means of treatment, and the peculiar applicability of this method to this form of disease.

1. *Analogy.*

Experience has shown, that injections of iodine are uniformly successful in two forms of cyst, viz: where the contents are serous, and where the surface is not too large; hence, in hydrocele, serous cysts of the neck, and spina bifida they have very uniformly succeeded, while in cutaneous, albuminous and sanguine cysts they have often failed, and in ascites they have proved dangerous, on account of the extent of the surface affected. In these respects, chronic hydrocephalus enters into the most favorable class; it is more uniformly serous than any other dropsical effusion, and it is confined in a cyst of limited extent, scarcely exceeding that of hydrocele.

2. *The nature of the disease.*

Chronic hydrocephalus is an encysted dropsy, in which a greater quantity of serum, than natural, exists in the ventricles of the brain, and it is, therefore, not to be regarded as simply an abnormal increase of the cerebro-spinal fluid.

Todd and Bowman, a very competent authority on this subject, are of opinion that it is distinct from it. "This fluid, which fills the sub-arachnoid spaces during life, keeps the opposed surfaces of the arachnoid membrane in contact." "The ventricles of the brain contain a secretion of very similar, if not identical characters, which Magendie describes as communicating with that of the sub-arachnoid space through an orifice in the inferior extremity of the fourth ventricle. This, however, is extremely doubtful, as the fluid of the ventricles is enclosed by a membrane which lines their cavity."*

Concerning this membrane, Kollicker expresses himself as follows: "All the portions of the ventricles, which are not lined by the continuation of the pia mater, have a special lining membrane, the so-termed *ependyma ventriculorum.*" "This is a simple tessellated epithelium. It lies normally immediately upon the nerve substance, but there is so frequently developed beneath it a filamentous layer, resembling connective tissue

* Physiological Anatomy of Man, p. 231.

(fibrous tissue) 0.01–0.05 of a line thick, that its occurrence at a certain age might almost be described as constant, as in fact it is by Virchow."*

No nerves have been as yet discovered in the membranes of the ventricles. The plexus choroides is composed of white fibrous tissue and blood vessels. The arachnoid, according to Kollicker, has no proper vessels. These facts are only referred to here as leading to a correct understanding of the manner in which the sac is formed in hydrocephalus, and as showing the entire absence of sensibility and irritability in all the parts of the surface concerned in the formation of the lateral ventricles.

Fleurens† found that the cerebrum, including the corpora quadrigemina, the optic thalami and the corpora striata, might be pricked and lacerated without giving rise to any sign of suffering or convulsive movements, and the same results have been obtained by other experimenters.

The fibrous layer of the *ependyma* ventriculorum is constantly found thickened in hydrocephalus (Kollicker op. cit.) and "brain sand" and *corpuscula amylacea* are often found in the walls of the ventricles.

"The general anatomical characters of chronic hydrocephalus are a large accumulation in the ventricles of a clear and colorless serum, which contains very little animal matter, and a thickening and toughening of their lining membrane, for the most part, to a considerable degree."‡ "I believe the really essential part of congenital hydrocephalus is the affection of the *ependyma*."§

The view that chronic hydrocephalus is a disease of the membrane lining the ventricles confined to these cavities for the most part, and not communicating with the cavity of the arachnoid (so called), or with the sub-arachnoid space, is important, as bearing on the question of treatment. Without, therefore, going into a discussion of the various forms which the disease presents, I shall add such proofs of this view, drawn from recent and reliable sources, as will leave no doubt upon the subject.

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* Manual of Human Microscopical Anatomy, p. 376 et seq.
† Du System Nerveux, p. 19.
‡ Rokitansky Path. Anat., vol. 3, p. 274. § Ib. p. 276.

M. Blache, in a memoir, presented to the Academy of Medicine, at its sitting of May 29, 1855, arrives at the following conclusions, the result of extensive researches.

1st. "In chronic hydrocephalus of the ventricles, the fluid accumulates in the lateral ventricles, rarely in the fourth ventricle. It does not communicate with the periphery of the brain, nor with the spinal cord.

5th. "The internal membrane of the ventricles becomes so thick that it may be dissected at all points, showing that it is continuous throughout and can have no communication except by the aqueduct of Sylvius.

8th. In two cases, we have not been able to find the aqueduct of Sylvius, and if we are not deceived, the cerebral cavities were completely closed.

9th. Nothing in the walls, nor in the liquid effused, indicated inflammation. We consider it a dropsy *pure et simple.*"*

Riellet and Barthez regard chronic hydrocephalus as a "non-inflammatory effusion into the cranial cavities." They consider the acute form of the disease as "a mere epiphenomenon of tubercular meningitis."

The alteration which the *ependyma* undergoes in chronic hydrocephalus is not always the same. In a case reported by Dr. Dugas, it was found on dissection, that "the inner surface of the *cerebral sac* resembled very closely a healthy mucous coat of the stomach. In this case flakes of a substance of a whitish color, some of which resembled pus, were found at different points. *

In a case which I examined, the whole internal surface of the ventricles was much firmer than natural, and the choroid plexus much enlarged, covered with granulations and very vascular, showing numerous small serous cysts in its substance. The orifice of the duct of Sylvius could not be discovered. When this canal remains pervious in chronic hydrocephalus, the fourth ventricle is dilated, as in the cases related by Klein and others.‡ In this case, which is reported further on, and which had been

* Gazette Medicale, for 1855, p. 346.
† American Journal of the Medical Sciences, vol. 20, p. 536.
‡ Dict. de Medicine, vol. 15.

treated by injections of iodine, there did not seem to be any lining membrane remaining, or it was so fine and attenuated as to be imperceptible. The fluid in this case seemed to have been secreted by the choroid plexus, and it is probable that it is to this circumstance, which seems unusual, that the failure of the treatment is to be attributed.

3. *Other treatment generally unsuccessful.*

No doubt can exist concerning the generally unsuccessful result of tapping in chronic hydrocephalus. The table published in the *Medical Gazette*, by Dr. Charles West, and republished by Professor Blackman, with additions in the *N. Y. Journal of Medicine* for May, 1854, seems to show that of sixty-nine cases in which it has been used, in nineteen the patients survived for four months. This is no doubt a much more favorable result than would be presented could all the cases which have been operated upon be collected, and it would be by no means difficult to add cases and authorities adverse to the practice. Still as a sole resort in a generally hopeless disease its performance is justifiable.

There can, however, be no doubt that tapping does sometimes effect a cure. Sanc Vosa, Halibrouck, Syme, Chassaignac, Adams, Bedor, Graefe, Crampton, Monod, Conquest and others, have reported cases of the kind, and if we admit that in some of these the cure may not have been perfect and permanent, this cannot reasonably be presumed to have been the case in regard to all. The operations by puncture show that while the practice is insufficient, the disease is not in its nature incurable.

The table of Dr. West, however carefully examined, throws but little light on the question of tapping. In most of the cases neither the appearance of the lining membrane of the ventricles, nor the color and consistence of the fluid, points essential to the correct understanding of the disease, is given. In two of the cases reported cured, it is stated that the fluid was clear and limpid at the first puncture, and became afterwards thicker and turbid, indicating that it was the inflammation excited in the lining membrane of the ventricles, and not the mere discharge of fluid, which effected a cure.

It is also noticeable that the cases in which punctures were

made with the couching needle, and in which but a small quantity of fluid was evacuated, resulted more favorrbly than those in which a trochar was employed. Græfe and Crampton both used fine needles with success.

Compression.

It is probable that a tabular view of the cases treated by compression would present a more favorable result than tapping. It has generally been resorted to in the earlier stages of the disease, and in the mildest form of it, and can at best be regarded only as a palliative.

When we consider the effects of pressure on the cerebral substance, it must be obvious that this treatment can only be applicable to the degree of affording to the thin and imperfectly formed coverings of the brain that power of supporting the brain which they have lost. In many cases, where the bones of the cranium are joined, patients die from the effects of pressure.

The principle of treating hydrocephalus must be the same as that of spina bifida hydrocele and serous cysts. It is beyond the reach of medicine administered by the mouth, and of external applications. Simply removing the fluid by tapping has, as in other dropsies, little tendency to cure it. But the exciting upon the internal surface of the lining membrane of the ventricles a moderate degree of inflammatory action changes the structure of the membrane, and alters the character of the fluid secreted, and, as in hydrocele, must cure the disease.

To effect this result, it is only necessary to excite a very low degree of inflammatory action. I have cured a case of ancient hydrocele by two successive injections of one fluid drachm of a solution of iodine, containing one grain to three grains of iodide of potassium. This was thrown in through the canula of a fine exploring trochar without evacuating the fluid. The patient, a laborer, continued his work during the treatment, and only felt a very slight degree of tenderness in the tumor, which at the end of four weeks was entirely removed. Other examples of the removal of the serous contents of cysts by the same means might be cited. According to the laws of *endosmosis* and *exosmosis*, we are taught that it is in many cases only necessary to change in a slight degree the constitution of a fluid, to cause

it to be absorbed rapidly. How far the same law may be applicable to membranes in the living body it is impossible to say, but there can be no doubt that, that change in structure of tissue, produced by a slight degree of inflammation, is sufficient to permanently affect its action of exhalation and absorption. This, according to the present knowledge, can most safely be effected by injections of iodine. But, here we are met by the objection, that exciting such inflammation is too dangerous. I have already given reasons sufficient for believing that such is not the case. The absence of sensibility, of irritability, of nerves, and red vessels in the *ependyma*, all indicate the contrary. The fact that the fluid in some cases of cure by tapping became fibrinous before absorption commenced, coincides with them. But to confirm these indications, I shall add two cases of idiopathic inflammation of the serous membrane lining the ventricles; one occurring in a healthy state, and resulting fatally; the other occurring during hydrocephalus, and resulting in a cure, in order to demonstrate the very great extent to which inflammatory action so situated may be carried before it proves fatal, and even without proving fatal. The first case is quoted from an article by Riellet, in the *Archives Generales de Medicine* for Dec., 1847:

Case 1. "An intelligent and well developed young girl, aged ten years and one-half, was seized suddenly with an acute headache, with vomiting, fever, and dread of light and sounds. After four days she had an attack of convulsions. The seventh day there was some difficulty of hearing. The vomiting, pain, and convulsions continued. The twenty-first day there was complete deafness. The fifty-second day the intelligence diminished, and the convulsions were less frequent and severe.

"The patient died at the end of four months, from a renewed attack of convulsions.

"The principal appearances found on dissection were the presence of ten ounces of perfectly limpid serum in the lateral ventricles, which coagulated 'like the white of an egg,' on the application of heat.

"The ventricular membrane, throughout its entire extent, offered a gelatinous appearance, was a *milimetre* in thickness

resembled the mucous coat of the stomach where affected with the commencement of gelatinous softening; but far from being softened, this was more consistent than natural, and could be detached throughout its whole extent. The cerebral substance was throughout of good consistence, not at all injected."

In this case, the most acute inflammation of the ventricular membrane, continued for four months, had produced no organic disease not consistent with life, if the fluid had been drawn off, and it is not a little singular that tapping should not be more frequently thought of in the acute form of the disease, in which it seems more urgently indicated than in the chronic.

Case 2.—Dr. Conquest, in April, 1829 or 1830, published a case of tapping in hydrocephalus:—

"This child, a girl of about two years of age, had several signs of hydrocephalus, from a date soon after birth, and for many months past, the head gradually increased until it acquired an enormous size. The forehead was unusually broad, and the anterior fontanelle unusually large. The pupils were permanently dilated. The child slept almost constantly, and frequently had two or three frightful convulsions during the day and night."

Dr. Conquest operated, introducing the trochar into the right lateral ventricle, an ounce and a half of bloody serum, mixed with portions of cerebrum, escaped. The fluid was allowed to escape stillicidium, and within forty-eight hours about two pints and a half flowed out of the opening.

Some symptoms of inflammation of the brain followed, which required leeching.

"When this interesting child was exhibited to the class on Saturday evening, every one was struck with the improvement of its appearance, and by the intelligence and cheerfulness of its countenance. Dr. C. stated, that he considered it perfectly well."*

In this case, acute inflammation supervened upon chronic disease of the ventricular membrane, and was carried to the extent of producing softening, if not gangrene of the brain. Yet

* American Journal for 1830, p. 515, from London Medical Gazette.

we see that a timely evacuation of the serum of the ventricles was followed by a cure.

I say cure, for although some have denied the possibility of such a result in hydrocephalus, yet it can scarcely be doubted, that in this case the cure was as perfect as is often obtained in acute diseases, when some traces of the morbid condition remain through life.

If it be objected that this is an exceptional case, I reply, that such a degree of inflammation is by no means contemplated as a part of the treatment of hydrocephalus. It is only adduced as evidence of the extent to which inflammation of the ventricular lining may be carried *in* hydrocephalus without permanently injurious effects.

4. *Hydrocephalus treated by injection of iodine.*

Case 1.—Dr. Tournesko, surgeon of the Civil Hospital of Koltsa, Bucharest, has recently communicated to the *Gazette des Hopitaux* a case of hydrocephalus, treated by injection of the tincture of iodine.

The subject was a child, two months old, and the head measured about twenty inches in circumference. At the first puncture, eleven ounces of serum were drawn. This was replaced by effusion in twenty-four hours. Another puncture was made the second day, and twenty-four ounces of fluid drawn off. This time the tincture of iodine was injected (twelve *grammes* of tr. of iodine in twenty-four *grammes* distilled water), of which one-eighth part was allowed to flow out. The quantity inserted contained, according to our calculation, about sixteen grains of iodine and three teaspoonsful of alcohol.

At the moment of the injection, the child turned pale and cried several times. The following day he had fever, for which calomel was prescribed.

Twenty days after the operation, the head was of the natural size, and the child was in good health. Thirty-five days after the operation, the child continued in the same satisfactory state.

The following are the details of the operation:

1. A large-sized trochar was used.
2. It was carried to the depth of about two inches.

3. The puncture was made in the coronal suture, at the side (as being the point nearest the ventricles), and at an angle of forty-five degrees with the horizon.

Case 2.—Case treated by Dr. Brainard, from *N. W. Medical Journal*, 1850.

Sept. 20, 1849. Saw a female child of Mr. R. aged 4 days, affected with cleft spine and hydrocephalus.

The cleft of the spine was situated at the lower part of the lumbar region, was about 3 inches in length and 1½ in breadth: the abdomen was prominent, particularly on each side, the divisions of the spinal column movable, showing that the want of union was not confined to the processes, but extended to the bodies of the vertebræ.

There was a fluctuating tumor situated over the fissure, about three-fourths of an inch above the surface of the surrounding skin. Its covering was then of a blueish color, semi-transparent, and seemed composed of the thin membranes of the spinal cord, and the cuticle alone. Indeed, the latter was wanting over a considerable surface, where an ulceration of the size of a shilling existed.

The head was of large size, measuring 19 inches around the frontal and parietal protuberances. The upper part of the parietal and occipital bones was wanting, and the head bulged out into a very irregular, tense, and perfectly elastic sac. The other bones were imperfectly ossified and separated. The head was hot, covered with large veins, and increased rapidly in size. The right foot was affected with a talipes varus, and the movement of the lower extremities was feeble.

The urine dribbled away, and excoriated the skin extensively.

Applications of nit. arg., in solution, were directed for the ulcerated spot, until it was nearly healed. Cold water was applied to the head to keep down the heat.

Oct. 9, at 12½ o'clock, the treatment was commenced as follows:

A very minute puncture was made with the point of the lancet, through the skin, half an inch below the tumor of the back, and a small sized exploring trochar passed from it obliquely upward into the sac. Without allowing the escape of more

than a few drops of fluid, f. dr. ss. of a solution of iodine, of the following strength, was injected: iodine, gr. j., iod. pot. gr. ij.; aq. dist. f. oz. j.; making 1-16 gr. of iodine and $\frac{1}{8}$ gr. of hyd. potas. in the injection. The puncture and surface of the tumor were then covered with a solution of gun cotton. No pain was felt at the moment of puncturing the skin, and from the application of the liquid plaster. I was assisted by Professors Evans and Herrick, and Dr. Meek, editor of the *N. W. Journal of Medicine.*

10th. 12 o'clock M. Found the child had been restless from the time of the operation until 6 o'clock P.M., when it became quiet; seems well. Veins of head less turgid than since its birth.

11th. Child appears well; head less tense. Applied adhesive liquid to tumor and continued cold water to head.

12th. Head tense; increased in size $\frac{1}{2}$ inch. Tumor of back flaccid, flattened and slightly inflamed.

13th. Tumor of back diminishing; head increasing rapidly. Ulceration of back cicatrized.

In consequence of the rapid increase in the size of the head, I determined to inject it without waiting, as I had intended to do, for the cure of the back to be completed. This was accordingly done with the assistance of Drs. Evans and Rutter. The point chosen was that most projecting on the summit and left side of the head.

About $\frac{1}{2}$ dr. of fluid was allowed to escape. The same quantity of the solution (of the strength before given) injected, and the puncture covered with adhesive solution. Child seemed to suffer no pain except from puncture and application of ether upon the point.

14th, 15th, 16th. Head hotter, and increased in size; appears well.

16th; 8 o'clock P. M. The puncture of head commenced leaking, which was stopped by Dr. Herrick with collodion.

17th, at 4 o'clock A. M., leaked again, and was stopped by a compress and bandage. Head flaccid; child irritable, sleepless, and starting.

19th. Head filling. To avoid danger of leaking from for-

mer puncture, 1½ oz. of fluid was drawn off by a very oblique puncture on the right side.

20th. Child restless; affected with apthæ. Head hot.

21st. Child appears well; head natural.

31st. Head, which was stationary, has commenced to increase; measures 20 inches in circumference. It was injected at 5 o'clock P. M., with f. dr. jss. of the solution. The puncture was made obliquely upon the summit of the right side.

Nov. 1st. For 24 hours no effect was perceptible. At the end of this time, it commenced to be restless and sleepless, twitching often, and declined the breast. Evaporating lotions were applied to the head; a cathartic of castor oil administered.

Nov. 2d. The child was much relieved, and took the breast. Head stationary; the whole of the back part of it covered with a red blush, which had gradually spread from the puncture.

Nov. 3d. Child restless. Head hot and red at the back part.

Nov. 4th. Heat less; redness almost gone; head diminished in circumference, ¾ inch in 24 hours.

5th. Child restless; head flaccid, diminished in size. Applied a band of India rubber, 4 inches broad, about it, to compress it.

6th. Has slept well from the time of application of band. Head diminishing.

7th. Continues to diminish. India rubber exchanged for a band of cotton.

From 7th to 24th, pressure continued; little change in head; remains stationary, at about 19 inches in circumference.

24th. Threw in ¾ of a dr. of solution; no effect.

Dec. 2d. Injected f. dr. jss. of solution. Head increasing; no effect.

15th. Head soft; diminished in size ½ inch in 24 hours.

At the first injection, but little fluid was allowed to escape. It was transparent, and showed, under the microscope, some epithelium cells. At the last operation, about one oz. was

withdrawn; it was of a straw color; gave a slight cloud on application of heat, and was gelatinous on evaporation.

18th. Injected f. dr. jss. of the following solution: iodine. iij.; iod. pot., gr. vj.; aq. dist., oz. j.; no effect.

30th. Threw in f. dr. jss. of the following solution: iodine, grs. ivss.; iod. pot. gr. xij.; aq. dist. oz. j.; no effect.

1850; Jan. 5th. Head is increasing rapidly; measures 22 inches in circumference.

Injected gr. ij. iodine; grs. v. iod. pot. in f. dr. ij. dist. water. The fluid drawn off this time amounted to oz. iij.; was clear: exhibited, on standing, a filamentous appearance, like an exceedingly slight coagulum, and yielded, with starch, no trace of iodine.

9th. Child was restless, and head slightly hotter than usual, after the last injection.

12th. Child well; head flaccid. Drew off oz. xij. fluid, and injected the same quantity as before of the solution.

15th. Child slightly restless after injection, but soon became quiet, and exhibited no effect except a free secretion of tears and mucus from the eyes.

18th. Injected gr. iv. iodine, and iod. pot., gr. x. in f. dr. vj. water.

19th. No effect except the secretions from the eyes.

22d. Child in perfect health; appears unusually bright, and is very active, moving its hands actively, and its feet slightly. Tumor of back reduced to a level with the surrounding skin. Urine retained naturally, and the excoriations healed.

26th. Drew off oz. xvj. fluid, and injected gr. viij. iodine, and gr. xxiv. iod. pot., in water, f. oz. j.

Scarcely any effect was produced by this injection. The head was stationary for about four days after the injection, and then gradually increased. Compression by adhesive straps, bandages and gun cotton were tried perseveringly, without effect. Head 24 inches in circumference.

Feb. 4th. Drew off f. oz. xxiv., and injected gr. xij. iodine and gr. xxxvj. iod. pot. in oz. j. water. No effect was produced at the moment, but in the evening, 12 hours after the injection.

there was twitching of the limbs and vomiting. The matter vomited colored the starched dress of the child of a dark color. The dress, diapers, bed, and handkerchief used on it were impregnated with the iodine odor for about three days after the injection, but the most careful tests, by Prof. Blaney, with starch, after adding chlorine water, never detected any trace of iodine in the fluid drawn from the head.

Feb. 19. For several days the head remained stationary, but has commenced to enlarge. Injected gr. x. iodine, with gr. xxx. iod. pot., after evacuating oz. xxiv. fluid. Head in this and other cases, when much fluid was drawn, supported with adhesive straps and bandages.

Effect the same as in the last instance, cold lotion was applied to the head, and purge of castor oil given.

March 5th. Head increasing. Drew off xxiv. oz. fluid, and injected the same quantity as before. Applied a laced cap to the head.

The symptoms resulting from this injection were but slight.

March 9. Drew off vj. oz. fluid, and repeated the same injection. This quantity reduced the head to the same size as before, by which it appears that 1½ oz. serum formed daily.

Remarks.—During the treatment for the last two months, the child has grown rapidly; the face, which was triangular and thin, has filled up, is fat and firm; the skin, from being pale, is become ruddy; the limbs are firm, and the skin of the head, from having been glistening, smooth, with but little hair, and large veins ramifying over it, is covered with a thick growth of hair, and appears very natural, the bones of the opposite sides touch, and the head is 20 inches in circumference; the bones being thick and firm. The tumor of back is entirely obliterated, and the skin in its former position becoming firm and of natural color.

10th. No effect; head paler than natural.

11th, 12th. Child restless.

15th. Is in good health. Drew off f. oz. vi., and injected gr. vij. iodine, with gr. xxj. iod. pot. in oz. j. of water.

20th. No effect from last injection; used gr. x. iodine, with

thrice the quantity iod. pot. in the oz. water. Fluid drawn, oz. vj. A few bubbles of air probably passed in with the injection.

21st. Has had twitching. Head pale.

27th. Drew off the same quantity, and injected as before.

28th. Little effect; dress colored by matters vomited.

April 3d. Repeated the injection with gr. xij. iodine, and gr. xxxvj. iod. pot. to the f. oz. of water. It produced vomiting and purging of matters which colored the clothing. It is probable the materials used were not pure, as they were not procured from the usual shop, and had a different effect from any former injection. Since the first commencement of the treatment, it had been noticed that immediately after tapping, or while the head was diminishing in size, the child was wakeful, nervous, and affected with muscular twitching, on the slightest cause, while, on the contrary, it was quiet and had a tendency to sleep, when the head was full and increasing in size. Recently this tendency to somnolence has greatly increased—so much so that it could be at times scarcely roused. It was evident the disease was approaching its natural termination.

April 11. Threw in gr. ix. iodine, with gr. xxvij. iod. pot. in f. oz. j. dist. water, after withdrawing oz. vj. liquid. Slight twitching of the limbs the next day.

April 17. Repeated the same quantity, after withdrawing f. oz. viij. liquid.

After about 12 hours had elapsed, the child was affected with severe and dangerous symptoms, twitching, vomiting of matters which colored the clothing dark. These symptoms continued 48 hours, and were the worst the child had experienced since the commencement of the treatment.

The analogy supposed to exist between spina bifida and hydrocephalus had at first given rise to the expectation that the treatment of the latter disease by injections of iodine, would be found efficient in its cure. This hope, after a fair trial, had in this case been abandoned, but the treatment was still continued, in the hope that its obvious effect in retarding the increase of the

head might enable the bones to close at a size which would allow of health and intelligence in the child.

The gradually increasing severity of the symptoms, following each injection, and the tendency to somnolence and diminished activity and intelligence of the child, suggested the propriety of suspending their use.

Accordingly, on the 2d May, I drew off viij. oz. fluid, without any injection, the tension of the head and somnolence rendering such relief necessary. For two or three days, this afforded relief, but fluid accumulated with unusual rapidity, so much so that during my absence, in attendance on the Medical Convention, at Cincinnati, the head attained a great size, the child became somnolent, and Professor Herrick was called on to tap the head, which he did, May 12th, to the extent of vj. oz., with but partial relief.

It was in this condition that the head was found on my return, May 14. It was greatly increased in size, hotter than usual, covered with large, branching veins, and the child somnolent.

Notwithstanding, the approaching fatal result of the case was apparent, yet the rapid aggravation of the symptoms under the treatment by tapping alone, as compared with that by tapping and injection, induced us to resort again to the latter, as a palliation; accordingly, on the 15th, I threw in gr. vj. iodine, with thrice that quantity iod. pot. in oz. j. water. The amount of fluid previously drawn off was oz. xij.

No perceptible effect was produced 12½ hours, when the child commenced vomiting and purging, fell into convulsions and died immediately.

Examination after Death.—The back, in the situation of the former tumor, was found smooth, firm, with but slight traces of disease. A cure of the spina bifida had evidently been effected.

On laying open the cranium, two-and-a-half pints of clear fluid was discharged. This was contained, principally, in the enlarged ventricles, there being but a thin layer on the surface, The arachnoid membrane was in a perfectly natural state, thin, polished, delicate; without any thickening or opacity. At the

point where all the punctures but two had been made, the two layers of the arachnoid were closely adherent to each other; so that all the injections had been made into the ventricles, and not, as I had thought probable, into the sac of the arachnoid. The deception, in this respect, arose from the extreme tenuity of the ventricular walls, which over the upper part of the cerebrum were scarcely a line in thickness, and at points composed of the investing membranes of the organ, the cerebral substance having entirely given way, so that the canula could be easily felt, when in the ventricle, by the finger on the outside of the head.

Descending to the lower surface of the cerebrum, the walls of the cavity became thicker. The optic thalami, and corpora striata, although separated from each other, were entire, and, with the exception of flattening, in their natural state. The corpora quadrigemina, medulla oblongata, and cerebellum were well developed and healthy.

The internal surface of the immense cavity, was composed of white nervous tissue, firm and smooth, except at points where there were slight elevations, without any sign of lymph effused or unusual vascularity. Indeed, the whole substance of brain and its membranes, seemed less vascular than natural. The corpus callosum, extremely thin but not divided, formed the roof of the cavity. The *iter ad infundibulum* was dilated, but the aquaduct of Sylvius seemed not pervious without pressure. On the floor of the cavity lay the choroid plexus, hypertrophied, and resembling a congeries of mucous follicles, rather than the natural condition of the membrane.

Between the cerebrum and cerebellum was found a cyst of the size of a small plum, containing a serous fluid. On opening this, there was found a small surface, resembling entirely that of the choroid plexus in the large cavity.

This circumstance, together with the perfectly healthy appearance of the arachnoid, induced Professor Herrick, who assisted me in this examination, to believe that the common opinion, that *internal* chronic hydrocephalus originates from the arachnoid membrane, in so far, at least, as this case is concerned, is erroneous. He thinks the diseased choroid plexus was the

source of the fluid. On examining that tissue with the microscope, his opinion (in which Professor Davis concurred) was confirmed, for he found in the tissue a great number of cells, arranged in groups, or in form of racemes attached to a common footstalk.

I am under the deepest obligation to Professor Herrick, for assistance during the treatment of this case. I was also assisted by Professors Evans, Blaney, Davis, Dr. David Rutter, and several other medical friends.

Notwithstanding the general preference in Europe of tincture iodine to the solution, and the success which appears to have followed its use in the hands of Dr. Tournesko, I adhere to my preference of Lugol's solution. This preference is founded upon what I regard as an established fact, that alcohol thrown into serous cavities is liable to produce violent inflammation, and upon the results of my own experience. I have used the solution with success in a very large number of cases of hydrocele, several of spina bifida, in empyema, in serous cysts, in dilated lymphatics, in ascites, in ovarian cyst. I do not use it at present either in hydrarthrosis or in ascites, but this does not arise from any accident which has happened with it in my own practice, but from the unfavorable results which are said to have followed the use of the tincture of iodine in these cases.

I regard chronic hydrocephalus as the most favorable form of dropsy for treatment by injections of iodine after hydrocele. The reasons are, that it is contained in a cyst, the internal surface of which is destitute of nerves, and consequently without sensibility, destitute in many cases of red vessels, and the irritation of which produces neither sensation nor spasm. In ascites, the surface of the peritoneum exposed to the action of a solution injected is so great, that danger may be apprehended. In hydrarthrosis the fluid effused is synovial, and the case is, therefore, less favorable for injections than serous cysts. There is a difficulty, however, in treating hydrocephalus not met with in other dropsies, which requires to be considered. It is, that the bones of the cranium to a certain extent prevent the walls of the sac from being brought together, and therefore prevent the discharge of the fluid injected. Now, this does not

by any means contra indicate the performance of the operation. In hydrocele, and in many other cases, it is even deemed desirable to leave behind a certain part of the fluid injected. If the fluid cannot be withdrawn, a smaller quantity must be used. The degree of inflammation desired is not by any means high. Still I am of the opinion, that it will be found difficult to inject a sufficient quantity of iodine into the ventricles of the brain, to excite the requisite action of their surface, without leaving so much of it as may constitute an overdose when absorbed and carried by the circulation into the different organs.

The plan which I should recommend at present to avoid this difficulty is this: 1, Use a trochar of a certain size, as that employed for hydrocele; 2, compress the head, and draw off as much fluid as practicable; 3, inject a solution of iodine of such strength that, when mixed with the fluid remaining in the ventricles, it will still be of the strength of $\frac{1}{2}$ gr. of iodine to the oz. of liquid; 4, throw this through a gum elastic tube, carried through the canula into the ventricles; 5, inject the fluid first drawn off through the same tube to expel the solution.

If distilled water at the temperature of the body be found as harmless as the serum, which I see no reason to doubt, I should advise to inject it so as to expel all the solution introduced. In this case the solution might be made much stronger. If distilled water should be found objectionable, it is probable that an artificial serum might be used instead of it.

It might be expected, before concluding, that I should lay down some rules for selecting the cases which are proper for operation. It is obvious that in case of deficiency of the cerebrum an operation would be useless. It is equally plain, that where the disease has advanced to its latest stage, when there are frequent convulsions, or great derangement of the functions necessary to life, an operation would not be advisable. Beyond this I am not prepared to go at present, not having data upon which to base any rules which it might seem desirable to lay down.

I cannot but feel the need of sustaining my recommendation of this method of treatment by such authorities as may be favorable to it. M. Monod, in a report made to the Society of Sur-

gery of Paris, March 16, 1854, on the subject of the case herein given, says, "it is to be regretted, in view of the innocence of the injections made by M. Brainard, that he had not tried them stronger and more abundantly;" and he adds, "this case, notwithstanding the want of success of the treatment, is well calculated to encourage new attempts in this direction."* It is needless to say, that I have shared the regret of M. Monod in this respect, but at the same time did not think it prudent to push the treatment further.

M. Boinet presented to the Society of Surgery, March 18, 1857, a report on the case of M. Tournesko, Surgeon of the Civil Hospital of Koltza, at Bucharest (Wallachia). The conclusion of this report is in these terms, "if the case of Mr. Brainard is not an example of complete cure, it proves at least with that of M. Tournesko, the innocence of iodine injections, which would have had, perhaps, a better success, if the important alterations of structure revealed at the autopsy had not existed. These two cases, and that of our *confrere* of Bucharest particularly, are not the less of a nature to encourage the use of these iodine injections in the cases where dropsy of the arachnoid does not extend to the ventricles of the brain, and where this organ is properly developed." "We think, then, that we may conclude with these facts only that iodine injections used with the necessary precautions are not only innocent, but efficacious, in the treatment of certain forms of hydrocephalus, when they are not accompanied with alterations of the cephalic substance." These reports did not, perhaps, receive the formal sanction of the learned society in all their details. No objections were, however, made, and the wise and conservative character of this, as of all similar bodies in France, where opinions are often taken as a warrant for practical action, is a guarantee that nothing rash or hasty would receive even an indirect sanction.

The individual authority of the reporters themselves is not trifling in this matter. Mr. Monod is a surgeon of Paris, of high standing, who has devoted especial attention to the subject

* Gazette des Hopitaux for 1854, p. 147.

of iodine injections, and treated by their means many difficult cases, some even of ovarian cyst, with success. M. Boinet is the distinguished author of an excellent work on *Iodotherapie* (therapeutical uses of iodine), which, although it is well known, is less so than it deserves to be, particularly in this country. He is not only thoroughly acquainted with the subject, but is a prudent and judicious surgeon of extensive experience.

This subject is brought forward at the present time for the purpose of inviting attention of surgeons to the advantages of this method of treating a disease generally incurable by other means. Many arguments in its favor have been omitted for fear of being too prolix. No other cases than those herein given are known to me in which this treatment has been used. It has never proved injurious. It is, therefore, hoped that the facts herein presented may be sufficiently conclusive to induce a trial of this plan of treatment first proposed, and put in practice in this country.

ARTICLE II.

CASES ILLUSTRATING THE PRACTICAL USE OF THE OPHTHALMOSCOPE, AS A MEANS OF DIAGNOSIS, IN CERTAIN DISEASES OF THE EYE.

BY E. L. HOLMES, M.D., OF CHICAGO, ILL.

[Continued from page 141.]

Case III. Incipient Cataract.—A gentleman, who had been struck upon the right eye with a riding whip, came to me some time after the injury, for examination, stating that, since the blow, the distinctness of vision in this eye had been much diminished, and that any continued use of the eyes was attended with great discomfort. The general aspect of the eye was normal, with the exception of a slight dilatation of the pupil, which had existed from the first. No belladonna had been applied to the eye, as I was informed by the patient.

An examination with the ophthalmoscope, disclosed upon the posterior surface of the lens a dark line, extending from near the centre downwards, and inwards to the periphery. This line

resembles one of the radii, which are usually found in soft cataracts, as delineated in most works upon diseases of the eye. Usually there are several radii observed in the affected lens, and it is quite rare that even in incipient cataract, only a single line of opacity is found. The transparent media of the eye in other respects are normal.

It is not my object to discuss the effects of the blow, but simply to describe the condition of the eye as I found it. There are many reasons for believing that the cataract in this case had existed for a longer period than the patient imagined, and that the blow called his attention to the fact that vision of this eye was imperfect. Cases are not altogether uncommon where patients have suddenly discovered that vision of one eye was wholly lost, upon making an attempt to look with one eye closed.

Case IV. Photopsia.—Patient is an Irish woman, aged forty years, of full habit, and addicted to the use of whisky. For a long time she has been troubled with occasional ringing in the right ear, and with symptoms of congestion of the nervous apparatus of both eyes, being annoyed by brilliant flashes of different colored lights; appearing in the field of vision, sometimes in the form of spheres, and at others without any defined figure. Patient often imagines she sees dark irregular flocula, resembling tufts of black cotton floating before the eyes. These appearances are all entirely *subjective*, since they seem to float before the patient's eyes in various directions independent of the motions of the globes. Floating bodies in a liquified vitreous humor, usually take a sudden motion upwards; on turning the globes quickly upwards, again to sink to their former position. Bodies fixed in a position directly behind the pupil always appear, as far as I know, in the same relative point in the field of vision.

There is scarcely any modification in the condition of the iris. Vision is still perfect, except during the paroxysms of photopsia, when patient finds difficulty in obtaining a distinct image of distant objects. The conjunctiva, as also all the other membranes visible to the eye, are healthy and free from congestion.

The retina of each eye, especially around the entrance of the optic nerve, presents, when viewed through the opthalmoscope, an appearance of congestion, this membrane being of a darker red, and the papilla of the nerve being less well defined than natural. In all probability, these appearances are sufficient to account for the subjective symptoms which annoy the patient, since similar changes in the color of the retina are often accompanied with photopsia.

In the right eye, moreover, which gives the patient the most trouble, there is a commencement of the process described in case number two, there being a slight deposition of pigment matter in the external and anterior portion of the concavity of the eye.

I am disposed to believe that this patient might be relieved of her symptoms in a measure, by suitable treatment. She is, however, in a miserable condition, exposing herself by every kind of irregularity to an increase of the disease, and neglecting to follow any course of treatment.

Case V. Encephaloid Disease of the Retina.—Some time since, I examined a boy, aged six years, to all appearance enjoying perfect health, who, for two or three months, had complained of increasing disturbance of vision in the left eye, the other being unaffected. Except a considerable dilatation of the pupil, the eye appeared in all respects normal. The patient could not, however, distinguish objects in the least with this eye, and was scarcely conscious of even bright light falling directly into the pupil. At this stage of the disease, I think, no one could have made a satisfactory diagnosis without the assistance of the ophthalmoscope. With it the posterior portion of the ocular cavity could be seen, beginning to present the peculiar appearance of encaphaloid disease of the eye (*retina ?*) which needs only to be seen once to be remembered. The diseased portion embraced about a quarter of the retina around the optic nerve, which it also involved. The peculiar, brilliant light copper-colored tint was already somewhat developed, and vessels were observed running in beautiful branches over the carious substance, which was still very thin, having as yet scarcely invaded the cavity of the eye.

Several readers of the *Journal* will recollect an example of this fearful disease, which I examined with them a few months since, in the case of an infant, in which the disease was so far developed in both eyes, that there could be no doubt, as regards diagnosis, even with the unassisted eye. In the right eye, the disease had wholly filled the cavity of the eye behind the iris.

Unfortunately, the only benefit gained by the use of the ophthalmoscope in the case just reported, was simply the diagnosis, which, with this instrument, could have been made even earlier; and even the sad revelation itself might, under the circumstances, prove of advantage to the sufferer, since he would be saved the trouble and pain of undergoing the infliction of the usual treatment for *amaurosis*, by purging, salivation, blistering, and cupping, which could only torment the patient without affecting the disease.

To me these three cases are of great interest, in illustrating the practical use of the ophthalmoscope in detecting the commencement of processes, which would remain wholly concealed from view without it.

[Concluded in next number.]

ARTICLE III.

CASE OF UTERINE POLYPUS.

BY DR. JAMES CODY, OF WATERTOWN, WIS.

Widow C., aged 40 years, mother of four children, the youngest of which is now eight eight years old. She is of bilious nervous temperament; has always enjoyed uninterrupted good health until three years since, when the present malady made its appearance. I was called in haste to see her on the 28th of February last. On reaching the address, I learned the following history of the case: Three years since, and without any apparent cause, first experienced excessive menstruation; a year subsequent, it amounted to menorrhagia, or rather at that time it was pronounced menorrhagia; medical aid was sought at this time, and treatment instituted, and carried out, but no relief followed; the uterine hemorrhage was constant, and during the

menstrual period, at various times, truly frightful and alarming, complete syncope coming on at short intervals. Present condition: pulse hardly perceptible at the wrist, and so quick as not to be counted; fainting and vomiting occurring very frequent; hands and feet cold; her countenance and general surface are ex-sanguine. Complains of all the cerebral symptoms consequent on hemorrhage. The legs and ankles are œdematous, and have been so for some time past. She is now flowing profusely. Digital compression of the abdominal aorta was resorted to for a few minutes, which checked the hemorrhage, and partial reaction took place. Arot. spirits ammonia, brandy; cold water dashed on the face; mustard poultice applied between the shoulders; heat applied to extremities. In a short time complete reaction took place. A vaginal examination now revealed a large pyriform polypus descend through the os uteri into the vagina and resting on the perineum, nearly, or quite filling the vaginal canal. The existence of such a disease was not dreamed of by the patient, her medical attendant, or her friends. The examination started the flowing again. The vagina was now plugged (as the patient was very weak, and could not bear the loss of any more blood; in fact, I thought she would surely die, the system became so bloodless), the T. bandage to retain it in place. Acet. plumbi. et opii. given in small and frequent doses. As she rallied up, nourishment and mild tonics given.

On March 3d, the patient feeling quite comfortable, the polypus was ligated; the hemorrhage, which for two days had been but slight, now completely ceased for nine hours, when it broke out again to an alarming degree; the abdominal aorta was again compressed with the fingers for a short time; stimulants were given, also the tampon was used during the night; she had frequent fainting spells and vomiting, but the hemorrhage was arrested.

Friday, 4th, 6 A. M.—Pulse, 130, small—tenetum aurem. No pain. Expresses herself as feeling quite well; some thirst; has vomited none since 3 o'clock; no fainting; extremities warm; flows a very little. The tampon was removed at 2 o'clock on account of pain. 1 P.M.—Feels comfortable, no pain; expresses

herself as feeling better than for a month previous. The bladder was evacuated by catheter. The ligature was tightened half an inch or more; produced but slight pain.

9 P.M.—Reports herself as feeling very comfortable. Pulse 120, of good character. No flowing.

Saturday, 5th, 9 A.M.—Reports herself as feeling comfortable. Pulse 120. Rested well during the night.

Saturday, 5th, 1 P.M.—Ligature tightened; caused but slight and indistinct pain. Injected the vagina with soap suds.

9 P.M.—Has spent a good day.

Sunday, 6th, 9 A.M.—Reports as feeling better and stronger than for four months previous. Rested well during the night. Appetite good. Pulse 112. No dejection for three days. Ordered mag. calc. and seidlitz powders.

2 P.M.—Tightened ligature. Complained of slight pain in back, and in tumor.

Monday, 7th, 9 A.M.—Rested well during the night. Is quite comfortable. Pulse 116. No dejection. Is to have enema. Appetite good.

1 P.M.—Tightened ligature. Injected vagina with soap suds.

Tuesday, 8th, 1 P.M.—Rested well last night. Feels well to-day. Cathartic operated three times. Appetite good. Pulse 116. Tightened ligature. Injected vagina with soap suds.

Wednesday, 9th, 5 A.M.—Has suffered very much for two hours, in consequence of retention of urine. Pulse 120. Tenderness of abdomen. Urine drawn off. Abdomen fomented. Anodyne administered.

Wednesday, 9th, 2 P.M.—Feels better. No tenderness of abdomen. Tightened ligature. Complained of pain in back, also great soreness of vagina. Injected vagina.

9 P.M.—Retention of urine, causing considerable irritation of the system, and pain in the abdomen. Pulse 130. Used catheter; ordered fomentation to abdomen; spirits nit. dulc. et tr. opii., 60; tr. veratrum viride.

Thursday, 10th, 9 A.M.—Rested well during night. Pulse 120. Retention of urine. Used the catheter. On tightening the ligature and making slight traction, the canula came away.

The polypus was brought away pretty readily, although, from its size, some force and manipulation was necessary for its removal.

Friday, 11th, 9 A.M.—Reports herself as well.

Saturday, 12th, 9 A.M.—Is doing well.

Sunday, 13th, 9 A.M.—Complains this morning of headache and sickness at the stomach. Vomited some green matters. Ordered mag. calc. et rhei.

Monday, 14th.—Feels better this morning. Medicine operated well. Feels able to be up, and wishes to do so; consequently I permitted her to get up.

Tuesday, 15th, 9 A.M.—Is doing well. Was up yesterday.

Wednesday, 16th, 9 A.M.—Continues improving; up all day, yesterday. Appetite good. No vaginal secretion whatever. No bearing down. No pain in back. Head feels natural. No symptom whatever of uterine derangement. Says she feels as well as at sixteen years of age. The œdema of the legs and ankles is disappearing fast. The lips and cheeks are assuming their natural color.

April 2d.—To-day, I have visited this lady, and the change which has taken place in her system in the course of a fortnight is truly wonderful; comparatively from the verge of the grave to apparent good health. There can be no doubt but much of this lady's suffering and misery might have been ameliorated, or cured by an early examination, and consequently a true diagnosis of the malady; but such was not the case. Three years rolled round, and all that long period, in which the lady lost pounds and pounds of blood, the true condition of things was never dreamed of. The case was supposed to be a case of prolapsus uteri, attended with menorrhagia, and treated for such.

ARTICLE IV.

MARSHALL HALL'S *READY METHOD.*

BY GEORGE V. EWING, M. D., OF ROCK RUN, ILLINOIS.

DR. N. S. DAVIS:

DEAR SIR,—In visiting your city last December, I did intend to make a request of you, but finding your time to be very precious, I thought best not to intrude upon you at that time. But now, by your permission, I will make the request. It is this, that you will publish in the *Journal*, for the benefit of its numerous readers, the *Ready Method* in Asphyxia, of Sir Marshall Hall, as it appears in the *London Lancet*, vol. i., 1857, page 148.

I am not aware that the method has ever been published in the *Journal*, and, I believe, I never have seen it in any of the medical journals to which I have had access, save the *London Lancet*. Hence it is that I make the request.

The method, aside from its importance in the treatment of drowned persons, possesses superior merits, and may be brought into almost daily operation in obstetrical practice. In my own experience I have had occasion to resort to it in a number of still-born infants, and have been highly gratified with the result in every case; and I am satisfied that some of the cases could not have been resuscitated by any other means.

This may be regarded as one of the great improvements of the day in our noble profession, and the name of its late author will, doubtless, be considered a sufficient guarantee for its superior merits. But permit me to add my testimony in its favor, by reporting a single case from the number of those who have had the benefit of the method in my practice.

September 19th, 1858, I was called in haste to visit Mrs. H., who was in labor with her first child. On my arrival, I found that the membranes had been ruptured and the liquor amnii discharged some time previous to my arrival. Pains were at this time regular, and moderately severe, occurring at intervals of about every ten minutes. Upon making an examination, I found that I had a case of foot presentation to treat. In five

pains after my attendance, the lower extremities and chest were born; after this the pains became very feeble and irregular. As there was great pressure upon the umbilical cord, causing the circulation entirely to cease, I proceeded to terminate delivery immediately; this, however, occupied considerable time, owing to great difficulty in bringing down the arms. The delivery of the head also proved to be very tedious, but by persevering, with all the force that was admissible in the case, delivery was finally accomplished. The time which elapsed from the last motion (which was very feeble) till delivery was terminated, was about thirty minutes.

The child, when born, was, to all appearance, lifeless. The cord was ligated and cut immediately, and as the mother did not require any immediate assistance, I turned my attention to the child to see what could be done. I first cleared its mouth and throat of mucus, which was rather abundant; then applied the method unceasingly for fifteen minutes, at the end of which time I had the pleasure of seeing my little patient give slight evidence of returning animation. I continued the method for twenty minutes longer and respiration was fully established, though the child was very feeble. I then enveloped it in some warm flannels, turned it on its side, and handed it to the nurse, gave the requisite attention to the mother, and in an hour left the house, with directions not to wash and dress the child for at least six hours. On my visit next day, twenty-four hours *post part.*, I found my little patient crying lustily. The child has continued to do well ever since, and at this date may well be considered as a fine specimen of *a sucker*, and the parents exalt the Ready Method of Sir Marshall Hall. Yours, etc.,

GEO. V. EWING, M.D.

Rock Run, Ill., March 30th, 1859.

[We republish, with pleasure, Marshall Hall's *Ready Method*, as furnished to the present editor by himself, although it was once inserted in this *Journal*. In so doing we would add, that this method seems to us imperfect in many respects, particularly in what relates to artificial respiration and the restoration of a proper temperature.—Ed.]

THE READY METHOD IN SUSPENDED RESPIRATION FROM DROWNING, ETC.

By Marshall Hall, M.D., F.R.S, of the Institute of France, etc., etc.

1. Treat the patient *instantly*, *on the spot*, *in the open air*, *exposing* the face and chest to the *breeze* (except in severe weather).

I.—To Clear the Throat—

2. Place the patient gently on the face, with one *wrist* under the forehead;

[*all fluids and the tongue itself then fall forwards, leaving the entrance into the windpipe* FREE.]

If there be breathing—wait and *watch;* if not, or if it *fail*,—

II.—To Excite Respiration—

3. Turn the patient well and *instantly* on his side, and—

4. Excite the nostrils, the throat, etc., and dash cold water on the face previously rubbed warm.

If there be no success, *lose not a moment*, but *instantly*—

III.—To Imitate Respiration—

5. Replace the patient on his face, *raising* and supporting the chest *well* on a folded coat or other article of dress;

6. Turn the body very *gently on the side and a little beyond*, and then *briskly* on the face, alternately; repeating these measures deliberately, efficiently, and perseveringly *fifteen* times in the minute, occasionally *varying* the *side;*

[*when the patient reposes on the chest, this cavity is compressed by the weight of the body, and expiration takes place; when he is turned on the side, this pressure is removed, and inspiration occurs.*]

7. When the *prone* position is resumed, *make* equable but efficient *pressure*, with brisk movement, *along* the back of the *chest; removing* it immediately before rotation on the side;

[*the first measure augments the expiration, the second commences inspiration.*]

*** The result is—Respiration;—and, if not too late,—Life!

IV.—To Induce Circulation and Warmth—

8. Meantime rub the limbs *upwards*, with *firm grasping pressure* and with *energy*, using handkerchiefs, etc.;

[*by this measure the blood is propelled along the veins towards the heart.*]

9. Let the limbs be thus warmed and dried, and then clothed, each bystander supplying a coat, a waistcoat, etc.

10. *Avoid the continuous warm-bath, and the position on or inclined to the back.*

TRANSLATIONS FROM FOREIGN JOURNALS.

RESEARCHES ON THE POSSIBILITY OF TEMPORARILY REANIMATING PERSONS DYING OF DISEASE.

BY DR. E. BROWN-SEQUARD.

Translated by THOMAS BEVAN, M.D., from the Journal de Physiologie for Oct., 1858.

For a number of years my researches on the transfusion of blood commenced in 1846, and continued almost without interruption to the present, have given me such results as demonstrated positively, that life could be re-established for a certain time in the mammalia dying of various diseases, and especially peritonitis.

I will only report here some few of the principal facts that I have observed, proposing at a future time to publish them in a more extended memoir on the transfusion of blood.

The experiments which have succeeded, were made upon animals that had ceased to breathe for variable periods (in one case 17 minutes), and in which all trace of voluntary movements and sensibility had disappeared. As to the heart, in the majority of the cases, the sounds were still heard, but the pulse had ceased in the arterial trunks of the extremities, and often even in the carotid; in two cases the beating of the heart appeared to have ceased for several minutes, the last convulsive agony had passed, and the pupil was dilating, or already dilated.

In a word, death was imminent, and no one assuredly could have supposed a spontaneous return to life possible.

The diseases of which these animals died that I am now describing, were for the most part inflammations of the peritoneum and pleura, consecutive to wounds of these membranes, made in experiments on different abdominal viscera and the par vagum nerves, sympathetic or diaphragmatic in the thoracic cavity. In several cases death was due to the extirpation of the suprarenal capsules of the kidneys.

In all these cases, without exception, asphyxia was the immediate cause of death. This is too important a question to be treated incidentally; I shall make it the subject of a series of memoirs on the causes of death in the acute diseases of men and animals. But I ought to say, for the present, that asphyxia in a great number of cases of lesions of the abdominal viscera, in the experiments which were the object of the present work, were, in great part, the consequence of enfeebled movements of the heart, the *primitive* cause of which (not the only cause) was the irritation of the ramifications of the great sympathetic nerve in the abdomen.

Whatever was for the rest the mode of production of the asphyxia, this existed, and, in endeavoring to establish life for a certain time in dying animals, it ought consequently to be taken into account. I was thus conducted to try if pulmonary insufflation would have any influence. In eight or ten cases of dying animals, it had a slight effect, in augmenting the force of the movements of the heart, and one only appeared to become sensible during a few minutes. It is entirely different when employed before the agony, but, as that is not the subject of this article, I will limit myself to stating, that the death agony may be retarded one or two hours by insufflation.

This artificial respiration being insufficient to recall life in animals dying of febrile maladies, I thought if, by employing other means, I could succeed any better, I ought to say to those persons who imagine galvanism to be a useful means in re-establishing life in the asphyxiated, that I have not employed it in a single case, because I knew that the best means of extinguishing the remains of life in the dying individual, was to

submit their nerves and muscles to the exhausting excitative action of galvanism.—(See *Lois des phenomenes dynamiques de l'economie animale*, No. 1, p. 7–10 *de ce Journal*). I thought of the employment of transfusion of blood, not with the foolish idea of the first transfusors, who believed they could cure grave diseases by substituting fresh blood for the diseased fluid, but with the desire to see the influence of this operation on the scarcely living organism, necessarily condemned to death.

I practiced the operation, sometimes one way and sometimes another, but space being wanting here, I will limit myself, apropos of a case that I now report, to describe the method which has succeeded with me best, and add afterwards a summary indication of some modification of this method.

Exp.—In October, 1851, a dog, in whom I had cut the great sympathetic nerve of the abdomen, was attacked with peritonitis, and after two or three days' sickness, presented the signs of approaching death known to all virisectors. The voluntary movements had already ceased for sometime (I did not note how long), sensibility and reflex movements had everywhere disappeared, even in the eyes; the last respiratory movements, those of the jaws and nostrils, had occurred, and were arrested. The convulsive agony (very feeble in this case) in the members, the face and the eyes, no longer existed, except in a tremor limited to a very small number of muscles. The animal had expelled the contents of the bowels and the urine, the pupil was dilated, and the beating of the heart was no longer felt; the only sign of life which yet persisted, consisted in a vague sound which no longer resembled the heart's action, was heard about eight times in the twelve seconds immediately preceding the transfusion of blood from another dog, made in the following manner: a silver tube, having the form of a T, was fixed by the branch which corresponds to the chapter of the T in the interior of the right carotid of the dying dog, and the free extremity a little curved of the other branch was introduced, and fixed in the left carotid of another dog, whose head and body were firmly attached to a table. Immediately the arterial blood of the healthy dog circulated in the two opposite directions, towards the head and heart, in the carotid of the dying animal.

At the same time the left jugular vein and one of the femoral veins was opened in the dying dog. These two veins at first gave no blood, but the jugular soon, and the femoral twenty or thirty seconds after, commenced to give a little. During the first fifteen seconds, by pressing on the carotid, from which the transfused blood came, I diminished the quantity of this liquid, and after two minutes the operation was ended, and ligatures put on the carotid of the living dog. The jugular vein was left open four or five minutes, during which the beating of the heart commenced to be felt. As fast and proportionally as the blood flowed from the jugular the pulse re-established itself. I then had recourse to insufflation; but, as I only had one assistant, the trouble of the operation prevented my counting the pulse during the first twelve minutes. When it was counted it was very feeble, and beat sixty-four times per minute. Insufflation was continued almost without interruption for half an hour. The cornea was found to be sensitive after the eighth minute of the insufflation. A few minutes later, respiratory efforts showed themselves. Lastly, after twenty minutes, the animal made voluntary movements, and, when insufflation was ceased, respiration occurred very rapidly, but without much force. The return to life, however, was complete as to the existence of all the principal functions of animal and organic life. The animal, although feeble, raised himself up on his fore paws, and wagged his tail when caressed. The pulse, small and feeble, was rapid, (110 to 120 then; several hours after, 80). At last, after remaining four or five hours in this condition, the animal sank anew and died (I was going to say re-died), eleven hours and a half after the transfusion.

I will add a few remarks on the details of this experiment. I did not weigh the dogs submitted to the experiment, and I am ignorant of the quantity of blood transfused, and of what quantity was lost by the dying dog; but I noted that the animal furnishing the blood was small, and that the other was large, so that, taking account of these facts, and the duration of the transfusion, with several other circumstances, I have reason to believe that the dying animal did not receive more blood than he lost. However that may be, subsequent experiments have

shown me that the moribund animal received more blood than he ought, and that it is probable the return to life would have been more rapid if the quantity had been less.

There are in this experiment several causes of the return to life: 1, the passage of the healthy arterial blood in the coronary arteries gave to the muscular fibres of the heart more irritability, and, in consequence, rendered them more capable of obeying the excitations, whatever they may have been, which caused their rythmic contractions; 2, the passage of the healthy arterial blood in the arteries of the encephalon; 3, the substitution of healthy blood for the blood changed by inflammatory disease, and by the asphyxia which exists in the agony; 4, pulmonary insufflation; 5, disgorgement of the right side of the heart, by the bleeding from the jugular.

Of these five causes of temporary return to life, there is one, the insufflation, of which I have said it was incapable alone, of producing this result. As to the others, I ought to say, they are nearly as inefficacious as the insufflation, when employed alone. Thus, the injection of the red blood towards the heart, by the carodid in dying animals, only succeeds in augmenting for a time the force and rapidity of the movements of this organ, but without re-establishing the circulation. Again, the transfusion of blood by the vein only hastens the complete cessation of the movements of the heart, if made without the right side of the heart being able, by the jugular bleeding, to disembarrass itself of the fulness which prevented its contraction in the asphyxia. The same, also the transfusion by the carotid towards the encephalon, only adds to the difficulty of the contractions of the right side of the heart, so that the opening of the jugular alone renders the heart more capable of acting, but only for a very short time.

M. Segolas, a long time ago,* and after him, J. Reid,† Dr. H. Lonsdale,‡ Dr. Cormack,‖ and, lastly, Dr. Struthers,§ have

* Journal de la Physiologie de Magendie, vol. iv., 1824, p. 290.
† Physiolog. Anat. and Pathol. Researches, 1848, p. 50–60.
‡ Edinb. Med. and Surg. Journal, 1836, No. 138.
‖ Treatise on Creosote, 1839, p. 84.
§ Edinb. Journal, Nov., 1856, p. 241–56.

established in the asphyxia of hanging, that following blows upon the head, or in certain cases of poisoning, that the movements of the heart may be increased, or reproduced, if arrested by bleeding from the jugular vein, by removing by this means the distension of the right cavities of the heart. This excellent means employed alone in the dying animal, where the disease is inflammatory, is absolutely powerless. Even if joined with pulmonary insufflation, I have never succeeded in re-establishing the circulation, and yet less the respiration and the functions of animal life. The only result of the simultaneous employment of these two means has consisted in an augmentation of the movements of the heart. But in those cases where I have employed them, even in the commencement of the agony, or before it was manifested by convulsive movements, I have seen quite often the circulation and respiration re-established during one or two hours, and sometimes even a momentary return of the functions of animal life.

I tried in a number of cases, transfusion by the carotid in the two opposite directions, taking care that the jugular was open, during and a little after the transfusion, and without making insufflation. The return to life was more rare in this class of cases than where insufflation was used, but it took place in several animals which survived two or three hours. I do not know the real proportion of animals reanimated for a time, in the number of trials I made, nor what was the average of this new life of the animals upon which I practiced the transfusion, insufflation and jugular bleeding, because I have not by me all the records of my experiments, but, according to the notes I have before me, in eleven experiments made on dogs, cats, and adult rabbits, nearly all dying of peritonitis, I see that, in four individuals reanimation was complete during two, three and four hours (one dog, one cat and two rabbits), and that three others recovered for one or two hours the circulation, respiration and the reflex faculty, without voluntary motion or sensibility having reappeared, while in four others no result was had, except a slight augmentation of the movements of the heart.

Of late years, having learned from numerous researches on transfusion, that the blood need not be either warm, or possess

its fibrine,* I have renounced the employment of the healthy animal to make the transfusion. After having bled from the jugular and commenced insufflation, I inject at different times, and very slowly, a quantity of blood, a little less than that the animal has lost, I make the injection alternately towards the head and towards the heart, so as to act upon the encephalon, with the view to re-establish respiration, and on the muscular fibres of the heart, to augment their irritability.

Can we draw any conclusions from these experiments, relative to the combined employment of transfusion, insufflation and the jugular bleeding, in men dying of inflammatory or other diseases? It is evident that in the immense majority of cases, it would be useless, if not cruel, to snatch from death for a necessarily short time, an individual of our race, where irreparable material lesions condemned him to death. But there might be cases presented in which it would be important that the intelligence, speech, the senses and voluntary movements should be rendered to the dying. Now, the facts mentioned in this paper, in demonstrating that *all the functions of animal life may be re-established for several hours, in animals in whom the agony has already almost given place to death*, render it extremely probable that the intellectual faculties, the senses, speech, etc., might be re-established for a few hours in individuals who have lost these faculties, and in whom the death agony has commenced.

The success of these various operations would be the more probable, as to practice them we should not wait, as I have done in animals, until the death agony had made considerable progress; and much less, until it had almost entirely ceased.

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* I have recently found, however, that the defibrinated blood presents thi danger, that in mingling itself with the blood of the animal, into which it is transfused, it sometimes causes its sudden coagulation, but it is probable that, in using a thousandth or fifteen hundredth part of the caustic ammonia to the defebrinated blood, one avoids the only danger known to me in its usage.—See the second part of the analysis of the book of Dr. Richardson, in the present number of this journal.

RESEARCHES ON THE ERECTILE ORGANS OF THE FEMALE.

BY M. CHARLES ROUGET.

Translated by THOMAS BEVAN, M.D., Chicago.

M. CHARLES ROUGET has lately published a somewhat remarkable monograph, entitled, "*Researches on the Erectile Organs of the Female and the Tubo-ovarian Muscular Apparatus, in their relations with Ovulation and Menstruation;* the results of which researches are as follows:

1. That in the female the uterus presents the structure of an erectile organ, a veritable corpus spongiosum.

2. That to the ovary is also annexed an erectile bulb.

3. That in all classes of the vertebata, and in particular in all the mammalia, a special muscular apparatus embraces the oviduct and the ovary, and determines their adaptation.

4. That the fascia of the ovario-tubar muscular membranes (*mesoarium* and *mesometrium*) have with the spongy bodies, and especially with their different sinuses, such relations, that at the moment of contraction the meshes of the network, in the midst of which the venous conduits make their way, contract in all directions, by which these last are necessarily compressed, and the exit of the blood more or less completely prevented.

5. That the contraction of the ovario-tubar muscular apparatus, continuing during the whole period of ovulation, the obstacle to the exit of the blood, and the erection of the spongy body of the uterus and the ovary which results, have the same duration.

6. That menstruation also coinciding, on the other hand, with ovulation, it is natural to consider it as the immediate consequence of the erection of the uterus. A real menstrual hemorrhage does not exist elsewhere but in such organs as present a true erectile structure.

7. That if the sexual excitation can, as it appears probable it may, determine the erection of the uterus and ovary, it is easy by this to account for its influence in bringing together the periods of menstruation and ovulation.—*Journal de la Physiologie.*

CIRCULATION OF THE NERVOUS FLUID.

From the Gazette des Hopitaux for 1858, page 136.

M. Flourens read a note on the *nervous circulation*, before the Academy of Sciences, March 15, 1858. It is worthy of especial attention, as being probably the *point of departure* for a series of discoveries on the direction of the nervous currents.

"Recurrent Sensibility.—On a recent occasion, I recalled the beautiful experiment of Magendie on recurrent sensibility. If we cut the anterior root of a nerve, this root, which previously gave signs of sensibility through its whole extent, now does so in its peripheric end only. The end attached to the spinal cord has become insensible."

"The sensibility of the anterior root comes, then, from the posterior root, and not from the cord." "Moreover, if leaving the anterior root intact, we cut the posterior, the sensibility of the anterior root is lost." "It is, then, doubly shown, that the sensibility of the anterior root comes from the posterior." "But, how does it come? Evidently by return, by a circuit, or half circuit; and this half circuit is made at a distance." "Magendie cut the whole nerve, the compound nerve formed by the junction of the two roots near the point of junction. He cut it four lines, six lines from this point, and the sensibility of the anterior point was equally lost."

"This return, then, occurs at a distance very far off, and by the extremities of the nerves, as the return of the blood from the arteries to the veins only takes place at the extremities of these vessels."

"This recurrent sensibility is the first feature (*trait*) of what I call the nervous circulation."

"Reflex Action.—Cut the head off an animal, pinch his foot or his tail, and he withdraws it. This is the fact so well studied by Marshall Hall. What passes in this case? The sensitive nerve from the point irritated has carried the impression to a corresponding point of the spinal cord; from this point the irritation is communicated to the motor nerve, and the foot, or the tail, is moved." "Reflex action thus understood, is the

complement of the recurrent action. This takes place by the extremity of the nerves, as that by the spinal cord."

"These two half circuits, the recurrent and the reflex, complete the circuit, and constitute the entire circulation."

BOOK AND PAMPHLET NOTICES.

Cours de Physiologie Compares. Leçons professee au Musee d'Histoire Naturelle. Par M. Flourens. Paris, 1856.

Course of Comparative Physiology. Given at the Museum of Natural History, (Garden of Plants.) By M. Flourens. Paris, 1856.

When M. Flourens writes a book, science is advanced and the world benefited. This is well known to men of science, particularly to students of physiology and of natural history, and all his works might be cited as proofs. We limit ourselves to the citation of his works on the nervous system, and on the growth of bone, as sufficient for our present purpose.

The practical merit of Flourens' books consists in this, that while they are unsurpassed in accuracy and originality as works of science, they often solve and put at rest incidental questions of a popular nature, the proper understanding of which is of importance to society. Thus, his work on the brain was the basis of his *Examen de la Phrenologie*, in which the theory of bumps and big heads received its final quietus.

The present work treats of the origin and formation of living beings, of spontaneous generation, of the origin, extinction and transformation of the species of animals. Incidentally, it demolishes that fabric of speculation and fanciful views developed with so much clearness in a popular form, in the romance called the "Vestiges of Creation," a work founded on the theory of cell formation of Schwann.

It is on this account that we take this occasion to give our readers some knowledge of this work of the illustrious secretary of the Academy of Sciences. We wish, too, that our readers should perceive that the science of physiology is concerned in

the solution of all these great questions which have arisen during this century; that it is not, as is sometimes asserted, the science of organs and functions only.

It is often said, that the dead are many times more numerous than the living. This is true of the species as of the individual. The extinct species far outnumber the living. Seven species of fossil hippotomi are found in the chalk beds under Paris: there is but one living species known. "There are 40,000 species of fossil shells now extinct." Is the earth, then, being depopulated? Not at all. "The number of species is daily diminishing." "The quantity of life on the globe is always the same."

What is the characteristic of each species of animal? It is the power of perpetual reproduction. A cross between the horse and ass, between a dog and a jackal, may sometimes reproduce, but never beyond the fourth degree. It is the character of hybrids or mongrels to become extinct at the fourth generation at the farthest. There is no evidence that any species of animal has ever changed its essential characteristics of form, habits or character. While the individuals change, and the elements of each are always changing, the form is perpetual. M. Flourens asserts, and no one is more competent to decide, that from the earliest historical period to the present, there is no evidence that a single species of animal has ever changed its essential characteristics.

Such being the facts, we are prepared to do justice to the theories of creation invented by ingenious speculators. A Frenchman, named Maillet, consul at Cairo in 1748, led off in the explanation of the origin of animals on the earth. Finding that appearances indicated that the earth had at an early period been covered with water, he concluded that all animals had at first been fishes. The waters retiring, left the fishes in the mud, and they crawled, hence reptiles; the flying fish became birds, etc. M. Maillet asserted that man himself was originally a fish.

All this is sufficiently ridiculous, but it is precisely the theory of Lamarck, which in the more scientific names has many supporters. Lamarck makes every thing from the monad. The monad developed becomes the polypus, and this in turn, accord-

ing to the circumstances in which it is placed, originates the different species of animals. The monad of Lamarck is the cell of Schwann, which, under different circumstances, is developed into the various forms of living beings which people the earth.

In answer to this theory, M. Flourens points to the fact, that neither climate, temperature, food, mingling of blood, convulsions of nature, nor any other cause, has ever been able to change the characteristics of the species. It may become extinct from these extraneous causes, but while it lives, it retains the same form.

Hence all men are of the same species, and have a common origin. This is the conclusion to which the facts adduced incidentally led. M. Flourens, in attempting to demonstrate the unity of the human race from physiological laws, arrives at the conclusions which have formed the basis of popular belief from time immemorial.

He will, no doubt, be received as a welcome recruit in the ranks of the defenders of this doctrine; for, truth to say, it has been attacked of late years, with a degree of earnestness and vigor which have seriously shaken the faith of many in its correctness. Are the races of men, dogs, horses, and oxen, respectively of the same parentage? The question cannot be regarded as settled. As yet the weight of scientific authority seems to be in favor of the affirmative.

But, how was animal life first introduced upon the earth? Was it by spontaneous generation, or some other unexplained means?

All antiquity believed in spontaneous generation. For them everything came out of the earth. The renewed force and activity of both vegetable and animal life exhibited in the spring seem to the careless observer to prove it. Epicurus said, the earth, in its first energy, produced all animals and men. Plutarch acknowledged that in his time this energy was greatly diminished, and only produced rats. Burdach, one of the ablest of recent physiologists, believed in spontaneous generation. M. Flourens does not believe in it. He combats this doctrine with an array of facts and force of logic, which scarcely fail to carry conviction to the mind. The scientific world at the present time

is almost unanimous against it. "Of all errors," says Fleurens, "this is the most absurd." "It is also the hardest to kill." It is in truth hard to kill. There are some who believe, that all the life on the earth resulted from the action of the rays of the sun upon it. Every year somebody succeeds in creating some little animals, as he thinks; and scarcely is the source of deception detected, than others, by different processes, are produced. The last instance of this kind was that of M. Pouchet, who, on the 20th Dec. last, presented a paper to the Academy of Sciences, in which he says:

"After having repeated all the serious experiments heretofore made on this subject, I came at length to those of Messrs. Schultze and Schwann." "At the present time I can certify that, by following exactly the processes pursued by them, and even by varying them, and giving them a much higher degree of precision, I have constantly obtained a positive result." "We see produced animalculæ and cryptogamia in a glass bottle, in which all trace of organic germs have first been destroyed, and where the air could only come, after having been amply washed in concentrated sulphuric acid, or after having traversed a labyrinth of fragments of porcelain at a red heat." M. Pouchet also produced his animalculæ in artificial air. We have not seen the report on this paper by the committee charged to examine it, of which M. Flourens was one. M. Pouchet is an eminent physician, and incapable of deceiving, unless deceived himself. But he will hardly gain for his views the assent of the "Imperial Academy."

Was animal life introduced upon the earth by successive creations, or all at one time?

The doctrine of successive creations is so fixed in the minds of the whole world, that it might seem absurd to call it in question. Nevertheless, M. Flourens does so; combats it, if not with success, at least with a power sufficient to cast a doubt upon it. He says, "the first traces of life are found in the transition series of formations; they appear as mollusca, crustacea, and even fishes. As we ascend in the sedimentary deposits, we meet reptiles, birds, mammifera, and even quadrimana." "The species are not presented, mixed together—each layer presents a dis-

tinct population." Hence it has been inferred that the epochs of creation corresponded to that of the successive layers.

This view supposes that present observations are perfect, that the entire earth has been explored. Nothing is further from the truth. Almost every succeeding year reveals fossils of vertebrata in layers, in which they had before been supposed not to be found. A single specimen found in the lower strata would destroy the whole theory, which, although it now holds possession of the ground, does so by a *precarious tenure*, and is liable at any time to be dispossessed by the production of a better title.

As the views of M. Flourens are new, and opposed to those generally held, we deem it proper to present an outline of his arguments in support of them. They are:

1st. The unity of the animal kingdom. There is not a double animal kingdom, one fossil and the other living. Each taken separately is but an incomplete part, reunited they make a whole, and adopt themselves each to the other, like the parts of a bas relief when restored. Thus the *plesiosaurus* is placed between reptiles and amphibia, the *pterodactyle* binds together birds and reptiles, etc. Yet the former are found as fossils, the latter living.

2d. Most naturalists, following Cuvier, in admitting successive creations, found their theory upon negative facts, as, for example, this: in the layers where reptiles are buried, no mammifera are found. Facts have already shaken, if not demolished this theory. Bones of the *mammifera*, the *quadrimana*, and even of man, *perhaps*, have been found in a fossil state, some of them in the lower strata. We say, perhaps, for M. Flourens does not assert in so positive a manner as M. de Blainville has done, that human fossil bones have been found.

3d. The resemblance, if not identity, of living and fossil species, fossil bones of elephants, horses, bears, etc., can scarcely be distinguished from those of living species. Why should we suppose them created at different periods.

M. Flourens promises to develop the proofs of his theory in detail, at some future time. At present he simply indicates them, concluding his course of lectures with the following words:

"In the times in which we live, the master no longer imposes his doctrines on his pupils; he gives them up for examination, for discussion. Meditate upon the views which I have presented; whether you accept them or not, I shall be happy to have provoked useful and conclusive researches on your part." "It is thus that each of us will have furnished a stone for that beautiful temple of science which is being erected by the nineteenth century."

On Poisons, in relation to Medical Jurisprudence and Medicine. By Alfred Swaine Taylor, M.D., F.R.S., Fellow of the Royal College of Physicians, etc. Second American from the second and revised London edition. Philadelphia: Blanchard & Lea. 1859. Pages 755.

Ten years ago Mr. Taylor's treatise on poisons was noticed in this Journal by Prof. Blaney. In the present edition the author professes to have brought the subject forward according to the advancement of science. Instead of giving a catalogue of poisons with their actions, he has "devoted more space to the consideration of substances which, from the frequency of their employment for murder and suicide, are of great practical importance."

This remodeling of the subject is required by the changes of the last few years.

For instance, the alkaloid strychnia was discovered forty years ago, and in eight or ten years after entered into medicinal use. Its deadly properties as a poison were known to the medical faculty, but it is only within a short time that the public have been apprized of these facts. In England, strychnia had never been used as a poison (except, *perhaps*, in one case) until the use of it by William Palmer; since then, its use for suicide and poison has been often repeated. But when the medical profession have been so educated as to distinguish the symptoms accompanying the administration of it (as a choking sensation, twitchings, and tetanic convulsions), the villain will fear to use this means of killing his victim.

The forty-three chapters of the present volume treat of the nature of poisons—their mode of action—absorption—influence of habit—classification, etc.—evidence of poisoning in the *living*

body—diseases resembling poisoning—evidence of poisoning in the *dead* body—evidence from chemical analysis—experiments on animals, etc. The author treats extensively of irritant poisons as mineral acids—oxalic acid—alkalies and alkaline salts—phosphorus—arsenic—mercury—lead—copper, etc.; and of neurotic poisons, divided into the great classes of cerebral, spinal, and cerebro-spinal poisons. Of these, the most common are opium, prussic acid, alcohol, chloroform, tobacco, strychnia, hemlock, belladonna, digitalis, and lobelia.

On page 696, in speaking of G. W. Greene, of Chicago, the author advances the opinion that there was a "failure of the medical evidence to show that death was caused by strychnia," and that the chemical analysis merely proved the existence of a medicinal dose of strychnia. But all who are cognizant of the facts will feel that no injustice was done to Mr. Greene by the verdict rendered.

The position of Mr. Taylor, as Professor of Medical Jurisprudence and Chemistry in Guy's Hospital, would be sufficient guarantee of close study and careful enunciation of the truth on this difficult subject. Besides, he is already favorably known to the American public as author of a treatise on medical jurisprudence and a former edition of this same book, which has risen to the position of a standard work. He has attained a great reputation, and occupies a niche in equal rank with Orfila and Christison. To any one who wishes to understand the subject of poisons, and especially in their relations to medicine and law, this treatise will afford great assistance. D.

EXTRACTS.

ON SCARLATINA AND ITS TREATMENT.

By E. Bishop, M.D., Devonport.

If we would have a science and the art founded thereon, to become more and more pure, we must direct our studies in the way which our present acquaintance with the science points out

to us. If the way be one of theory, we must theorize; if it be one of practice and observation, we must observe and investigate. Medicine is essentially a science of facts. The store of facts is gradually accumulating, and has already, indeed, increased to such an extent as to render the teaching necessarily more and more practical, and to show that things, not words *en masse*, form the material with which the practitioner's mind must be supplied. The more medicine is made to partake of the real, the more prominent and bright will it shine.

The foregoing I saw in print some time since, and the remarks appear applicable to the following. It is desirable that contributions to the medical press, however trifling they may appear to some, should be published, especially respecting any new or successful treatment in serious diseases. It is the duty of the practitioner to record his method of treating disease even if it does not appear strictly orthodox, or in accordance with the prescribed methods. If we had to rest entirely upon the authority of even our best authors, we should fall miserably short; for the numerous opinions given as to the nature and treatment of this and other diseases are so contradictory and conflicting as to mislead the matured as well as the juvenile practitioner. Or, to quote the language of Dr. Gilmour, "My young brethren in medicine must not trust implicitly to what they read in books; many of them are truly valuable and trustworthy, but others (and of these there is a large number) are written to suit a purpose, and contain trash."

I beg to state as briefly as possible the treatment I have adopted in this disease during the last nine months. There is nothing original in it, so far as it relates to myself. I know friends who have tried it with marked success. Scarlatina has been rife in this town for the last nine months, and has proved fatal to a large number of children belonging to all classes of society. In many families, one, two, and even three have succumbed to it. I applied to the Registrar for the exact number of deaths from this disease in the three quarters ending March, June, and September, 1858, and he has been kind enough to supply me with a return, by permission of the Registrar-General. In the first quarter of the present year, the deaths from scarlatina

reached 23; in the second, 44; and in the third, 27, in children under ten years of age.

In fifty-one cases of scarlatina scattered over the town, in children varying from two to ten years of age, my plan of treatment has been tonics from the commencement (*i. e.* from my first visit), either the citrate of iron, or the tincture of the sesquichloride, in the usual full doses; and I have every reason to be satisfied with the result, having lost but one case. I made no difference in *the plan of treatment* even when serious complications presented. In many the fever was intense, the inflammation of the throat severe, and pain in swallowing very considerable. Four children in one house, in Cannon street, had scarlatina anginosa in an aggravated form, being attended with an acrid discharge from the ears and nostrils. In one case deafness has remained nearly permanent. I entirely discarded the application of strong caustics to the throat and tonsils, which many years' experience has taught me is injurious in very young children, and calculated to do more harm than good, to say nothing of the injury and difficulty attending the operation. External applications to the throat I found most beneficial—either the compound camphor liniment, oil and hartshorn, or turpentine sprinkled on a strip of flannel, previously wrung out of hot water, and applied several times during the twenty-four hours. Inhaling the steam of hot water gave much relief, as it generally does. The children I have been called upon to treat have long belonged to the poorer class; the diet necessarily simple; in severe cases, broths, beef-tea, milk, jelly, and wine were recommended, and procured, if possible. One gratifying result in the treatment of scarlatina with iron, as far as my experience carries me, is that the children, with few exceptions, escaped that serious and frequent sequel—anasarca.

I have seen two cases of diphtheria following scarlatina during the epidemic, in children four and six years of age. The first child had been convalescent a week or ten days, and I must confess, I could not understand the cause of the relapse. After a few days, I suspected diphtheria; the child would never allow me nor the parents to examine the state of the throat, although rough usage was resorted to more than once or twice. During

the time it suffered extreme prostration, and was supported by wine and beef-tea; it also took a mixture containing the tincture of the sesquichloride of iron. This child ultimately coughed up the membrane characteristic of diphtheria. A fit of vomiting and coughing came on at a time when it appeared beyond hope; but when the membrane was released, the child was relieved, and gradually rallied.

A remarkable case under my care was that of a boy, aged four years, belonging to the Royal Naval and Military Free Schools. I first saw him twelve weeks ago from the date of this communication; he had then scarlatina anginosa, from which he recovered sufficiently to enjoy a walk. About a fortnight (to use his own words) "pimples coming out of his face and body." On visiting him, this proved to be variola discreta. He had been successfully vaccinated, judging from the cicatrices in his arm. The little fellow suffered severely; he had not regained his strength from the debilitating consequences of the previous illness. He was kept up by wine, beef-tea, ammonia and bark, as maturation of the pustules went on but slowly. He recovered from this attack, but not sufficiently to return to school, when I was requested to visit him, as he had hooping-cough, which was and is now epidemic in this town; and this being complicated with pneumonia, terminated his existence a few days ago. There was something remarkable in the fact of this child having three of the most serious and fatal diseases of childhood in the short period of three months. One little girl who was in the habit of going to the house of the deceased is now under treatment for variola.

I trust the tonic treatment of scarlatina with iron may have a trial elsewhere, and prove as efficacious and successful as it has been with me. I conceive it is far better to prove by facts than to judge and condemn without a trial, simply because the treatment does not harmonize with the doctrine laid down by our popular authors and preceptors.—*London Lancet.*

ON THE SPECULUM VAGINÆ.

BY JOHN P. METTAUER, M.D., LL.D., OF VIRGINIA.

The employment of this instrument, of late years, in the exploration and treatment of uterine affections, has become almost as common as the stethoscope and percussion in the diseases of the thoracic organs. Even inexperienced practitioners, who have barely laid aside the swathings of their pupilage, presume to employ it, and speak authoritatively of the mode of applying it, as well as of the diseases demanding its use. They seem to regard the operation as a thing of little importance, as far as female delicacy is concerned, and to believe that poor woman should submit to it, even if a disease of the uterus is only suspected to exist, that might possibly render the speculum necessary hereafter.

Every enlightened and humane physician will concede that a necessity will sometimes arise for the employment of the speculum, as well as other modes of exploration, repulsive to female delicacy. In such cases a sacrifice of delicacy becomes a duty, and sensible women unhesitatingly submit to its wise and sacred behests.

The writer has undertaken this communication for the purpose of showing that the speculum, in the investigation and treatment of uterine diseases, has been needlessly employed, and its value, as a means of diagnosis, greatly abused. That the instrument is entirely unnecessary in a large majority of uterine diseases, the writer's experience abundantly testifies. His experience with the speculum, too, has long since satisfied him that the evidence furnished by it is often unsatisfactory, and not to be relied on; nay, in some instances, it is actually deceptive, by reason of the changes caused in the state of the os and cervix uteri, by the pressure of the instrument on them. It has frequently been the case, in the hands of the writer, that the pressure of the speculum has so changed the color and presenting surface of those parts, as actually to defeat the objects of the examination; and such will often be the case in engorge-

ment, the deviation of position, internal ulceration, and very frequently, of ulceration of the os itself, no matter how carefully and skillfully used, it affords little, if any, information of a reliable and useful nature. Even when the three or four-bladed instrument is employed, the operation and results will be obnoxious to these objections in a great degree, and they are the only reliable forms of vagino-uterine speculums in displaying the parts to be examined, and are also more readily and easily introduced; yet, little difficulty will be encountered in the use of any of the speculums now in use, even with a mere novice, who has carefully studied and learned the form, course and depth of the vagina, the highly wrought and faithful account of such difficulties, published in the *Monthly Stethoscope and Medical Reporter*, No. 2, Vol. II., for 1857, to the contrary notwithstanding.

It is not pretended that the speculum is useless, or absolutely unnecessary in vaginal and uterine diseases. Far otherwise—as the writer has employed it in those diseases, in some instances, with the best results. It is to the officious and indiscriminate use of it that he objects, and to the exclusion and neglect of the more reliable and delicate mode of examination by the "toucher."

The speculum has not found general favor in France, although more employed in that country. At the head of its opponents there, the name of the distinguished Velpeau stands conspicuous; and it is matter of gratulation to the writer to find his views supported by such high authority; yet he entertained these views and carried them out in practice years before he was aware that Velpeau had expressed similar opinions and objections.

It is probable that the physicians of this country and France, more generally and indiscriminately employ the speculum than any others in the civilized world; and it is probable, also, that the taste for using it is due, in a degree, if not wholly, to the cliniques, as well as to the hospital practice connected with the medical schools of those countries where female delicacy and exposure are regarded with little concern, as the subjects of the use of the speculum are derived from the most degraded classes

of society, with whom modesty is only known by name. In many instances, the writer has met with women laboring under organic disease of the uterus, who declared to him that they would sooner take their chance to live and die with the disease, than submit to the use of the speculum; and all are more or less opposed to it, even those who finally submit to its employment. Really, it is not to be wondered at, that a modest, delicate woman should feel unwilling to submit her person to such a revolting exposure; and the writer candidly owns that he has never yet applied the speculum, or even examined by toucher, without being more or less abashed and disconcerted, by reason of the exposure the operation necessarily imposes on females. Even the ordinary modes of investigation by question and answer, often greatly shock a modest female, and in a degree, in some instances, embarrass the diagnosis of her diseases.

When organic disease of the uterus exists, and the rational symptoms fail in furnishing the requisite amount of information necessary to form a satisfactory diagnosis, nearly every intelligent woman will consent to a physical examination, if made sensible of the necessity for it, especially if the proposition to do so is delicately presented; and such being the case, it is the duty of the physician, as far as is consistent with safety, to save his female patients all needless shock of feeling from delicate questions or personal exposure.

Entertaining such views of this delicate subject, the writer, some ten years since, directed his attention to the investigation of organic diseases of the uterus, guided by the toucher, chiefly; and, after repeated trials, affording ample experience, he unhesitatingly states that the information it furnishes is far more reliable and satisfactory than that derived from any form of speculum, in determining as to the existence and nature of such diseases. In numerous instances, during the time above stated, he has tested the correctness of his diagnosis in uterine diseases, guided by the taxis. Most of the examples presented ulceration of the os, but in many cases the cervix was also implicated more or less extensively. Ten of them exhibited the os patulous, exceeding in size a Spanish dollar, and deeply ulcerated, the cervix indurated considerably beyond the interior boundary of

the corresponding border of the ulcer, and the general health greatly impaired.

After carefully examining into the condition of the os and cervix uteri by the toucher, he was enabled to detect ulceration with great certainty, as well as induration, engorgement, and all of the deviations of position.

An ulcerated os uteri presents to the experienced touch the same feel as an ulcer on the exterior of the body; and an accompanying induration of the surrounding parts is a very common attendant of such ulceration, as it is also of many external ulcers. Induration of the cervix, however, is decidedly more apt to accompany intra-cervical ulceration; and as it is uniformly met with in such ulceration of the cervix, clearly ascertained to exist, as well as frequently in ulceration of the os likewise, it may safely be inferred that it represents ulceration in all those cases in which the cervix is inaccessible to the touch, when indurated, without ulceration of the os.

In deciding as to the existence of induration of the os or cervix uteri, the speculum is absolutely useless. Even in ulceration, the information it imparts is unsatisfactory and unreliable. In engorgement and inflammation, it furnishes no information that is not derivable from the toucher, elucidative of those conditions, and is far more offensive to the feelings of a delicate woman than the investigation by the taxis.

The discharge, said to be characteristic of, and peculiar to, ulceration of the os and cervix, is not by any means constant in appearance, nor does it furnish conclusive evidence in all cases that ulceration does exist when met with. If present, and just issuing from the os uteri, either in its semi-fluid or ropy condition, the speculum, if then applied, would only prove that the morbid secretion unequivocally proceeded from the os uteri. The discharge of this diseased product externally, however, affords as satisfactory evidence of ulceration of the os uteri, as if actually seen escaping from the uterine cavity, because its characters are sufficiently marked to remove all doubts of its identity.

Although furnishing pretty satisfactory evidence of the exis-

tence of organic diseases of the uterus, of itself, the revelations of the toucher should invariably be taken in connection with the other symptoms usually met with in such diseases, in forming a diagnosis. The ulcerated os and cervix, when accessible to the touch; the induration; the peculiar discharge; pelvic and dorsal pains; inability to stand at a long time; frequently, abdominal pains; disordered digestion; nervousness; depression of spirits, and the peculiar desponding expression of countenance termed "facies uterine," when taken together, leave little room to doubt as to the existence of ulceration of the os and cervix uteri.

The speculum will be demanded in those cases in which the os uteri cannot be reached by the finger, as then no other reliable plan could be adopted for exploring, and treating such examples. Fortunately, these latter instances are rarely to be met with, as the writer has only witnessed two out of over a hundred cases treated by him in ten years. It will also be required in scirrhous uteri, when the indurated cervix is to be excised, and when adhesions between the os or cervix and vagina exist. And it will be indispensable in cauterizing the uterus with the incandescent iron, and in leeching or scarifying the organ.

For the purpose of cauterizing the os and cervix, the writer employs the nitrate of silver, and the acid nitrate of mercury, conveyed to the parts, concealed by a canula directed by the index finger of the right hand; and the operation should be repeated once in three or four days, or after longer intervals, if the previous operation is followed by prolonged bleeding, until the cure is perfected. The nitrate of silver is best adapted to the mild or slight examples of ulceration; while the acid nitrate of mercury should be used when the ulcers are deep and extensive, and especially if the cervix is decidedly implicated. It is best, however, to begin the treatment with the nitrate of silver; and if amelioration seems tardy, then to employ the acid nitrate of mercury in alternation with the caustic silver.

The position most convenient to the operator for examination, as well as for the application of remedies, is on the left side,

with the thighs flexed on the trunk, and the legs on the thighs. The person should invariably be covered, and the nates placed near the border of a bed. In this posture, the parts can generally be reached and examined with the index finger of the right hand with entire convenience; and it is also best for the application of the speculum, as well as the cauterizing agents employed through it.

The first trials, in the use of the caustic, upon the plan advocated in this paper, will, in all probability, be attended with some difficulty; but gentle efforts, repeated again and again deliberately, will soon impart the requisite dexterity of manipulation to insure success; and, after learning how to apply the remedy, the ease with which it can be done will astonish both patient and physician.

A crayon formed of the nitrate of silver, or the stick itself, may be used, applied as already intimated; and, for the application of the acid nitrate of mercury, a short, full camel's-hair brush, or mop, saturated with the undiluted solution, answers best. The canula should be fully ten inches in length, of proper calibre to contain the crayon, or mop, and open at both ends, so as to allow the handle of the crayon to project sufficiently beyond the free, or outer extremity, so as to be held and wielded by the operator's left hand; and it may be formed of silver or glass—the latter material the writer employs, and decidedly prefers.

To guard against vaginal irritation, from accidental diffusion of either of the caustics over its surface, after being applied to the uterus, a weak solution of common salt should be invariably injected into the vagina immediately after any cauterization—using for the purpose a female glass syringe—taking care at the same time that this saline solution is effectually applied to the upper portion of the passage immediately around the cervix uteri. After this the vagina may be abluted daily with simple water, or mucilaginous infusions, such as slippery elm or flaxseed teas, applied tepid or cool, as may be preferred by females. The saline wash may also be used tepid to cool, according to the fancy of different patients.

The bowels should be kept in a soluble, easy condition, using

for the purpose, when necessary, mild aperients, especially gentle aloetic preparations. When induration of the cervix exists, and if the habit is anæmic, the iodide of iron will be proper. If anæmia, without induration, is present, and more especially should there be nervous debility, and marked depression of spirits, frequently tending to deep despondency, the phosphate of iron will be indicated. It will sometimes be necessary to resort to vegetable tonics in these cases; and in many instances nothing answers better than good porter. The cold infusion of wild cherry bark (prun. virgin.) will very often supersede all other vegetable tonics; and the cases most likely to be benefited by it are those attended with undue nervousness, as well as debility. When the liver is torpid, and the bowels refuse to respond to the action of aperients, the nitro-muriatic acid mixture will be found signally beneficial. The diet should invariably be simple, and moderately nutritious.

It will greatly promote recovery, to require patients to remain in bed, or in a recumbent posture, during treatment; and, for months after recovery, every species of traveling will be hurtful. The utmost care should be taken to guard patients against exposure to variable temperature. Catarrhal disturbances invariably aggravate uterine diseases of every kind, and in none do they prove more hurtful than in ulceration and induration of the os and cervix.— *Virginia Medical Journal.*

EDITORIAL.

AMERICAN MEDICAL ASSOCIATION.

The next meeting of this society is to take place at Louisville on the first Tuesday of May next. On the day preceding, there is to be a convention of medical teachers, to take into consideration the question of certain alterations of the present plan of teaching, which have been proposed, and which it is fashionable to call medical reform. Almost every journal among our exchanges has had a word to say on the subject of

the action of this convention, and it seems to be expected in some quarters, that it will be able to propose some kind of alteration, which is to be of signal benefit to the profession. For ourselves, we regard this expectation as altogether unreasonable.

In the first place, neither the convention, nor the association, has any power over the action of the colleges, the profession, the public, or the students.

The colleges will go on as heretofore, granting diplomas so long as it is for their interest so to do.

The profession will, as before, remain, for the most part, indifferent spectators of the action of the colleges.

The public will continue to employ the doctors graduated by the colleges, so long as they are the best they can get. When the people will no longer employ the doctors created by the colleges, the conferring degrees will be likely to be given up.

Students will continue to resort to the best or the most popular schools, or, if of limited means, to those within their reach.

How, then, is medical instruction to be improved? This must be done by substituting the idea of improvement for that of "reform." This is to be effected by improving the quality of the lectures in the medical schools. Excellent as are many of these courses, there is still room for improvement, particularly in the means of illustration. What is necessary for teaching is also indispensable for investigating. The founding of the Mott and Mutter collections is among the best evidences of progress, and the most cheering signs of the times. Medical libraries adapted to the purpose of the thorough research are among the means of improvement whose want is most severely felt.

Teaching outside of colleges, in offices, hospitals, and by associations, is to be encouraged. What would the medical teaching of Paris be if reduced to the official courses? It is the private courses which give to the teaching of that city its greatest advantages. In this respect, the improvement which has taken place in this country within the last twenty years, is remarkable. Twenty years ago, it was difficult to obtain a thorough knowledge of auscultation and percussion, still less of

other *specialities*, in the United States. Now, there is no large city in which they cannot be acquired with a good degree of accuracy.

Still, there is much to be desired in this respect, and it is in the power of the colleges to effect something in the way of improvement, by instituting preparatory and complementary courses of teaching.

Already have movements in the right direction been made, and it is from their encouragement that improvements in teaching can be expected.

So long as the cant phrase "elevating the profession," is the motto, little is to be expected in the way of true scientific advancement. The physician who, by diligent study, acquires skill and knowledge beyond his neighbors, not only receives the reward of his diligence, but stimulates many others to imitate his example. He who writes an essay of value to the profession, not only improves himself and instructs others, but sets an example, the influence of which is felt far and wide. The same is more emphatically true of valuable books. General improvement is composed of an aggregate of individual instances of it; and these latter must precede the former.

If any man mourns once the low state of medical knowledge, let him by his own industry, set an example of what a physician should be in practice, teaching and writing. That is the best thing he can do.

We do not despair of seeing something accomplished by the national asssociation much more useful than anything it has yet done. It is discouraging to see incompetent, noisy individuals thrusting themselves into places of prominence in its meetings. It is melancholy to read some of the reports on "medical literature," and medical education, which these same persons, as chairmen of committees, have inflicted upon us. But these are rather the exceptions than the rule.

We indulge the hope of yet seeing the association so organized, that the presenting and discussion of scientific papers and subjects, in sections, shall constitute the business of its meetings. Of how great advantage to the surgeons and surgery of America would a meeting of those cultivating that branch of

the science be, if assembled for discussion, we need not say. To us, this appears to be at the present moment, the only suggestion in the way of reform which we feel at liberty to make.

We omitted to mention, that Taylor's work on Poisons can be procured of W. B. Keen, 148 Lake street, who keeps a large assortment of medical works.

We are making arrangements to issue the *Journal*, on the first of every month. On the first of June, we expect to furnish our patrons at the proper time.

Those who have not paid in full are requested to forward the amount in arrears, as this will save the expense of collecting. We feel satisfied that they will gladly comply with this request.

☞ In future the space devoted to advertisements will be an addition to this *Journal*, and not be taken from the body of the work. The advertising department is now placed in the hands of the printer, Mr. J. Barnet, 189 Lake street.

MISCELLANEOUS MEDICAL INTELLIGENCE.

CHICAGO ACADEMY OF THE MEDICAL SCIENCES.

A new medical society has recently been organized in our city, with the above title. Judging from the harmony and zeal manifested at its former meetings, and also from the high character of the gentlemen composing it, we have not the least hesitation in saying, that it will be an entire success, fulfilling the expectations of its most sanguine friends. The profession of Chicago have long felt the need of such an institution as the present organization promises to be, and it is to be hoped that the medical fraternity will unite in placing it on a basis equal to that of the N. Y. Academy of Medical Science, and other kindred societies in eastern cities. They propose to secure a charter at the next sitting of the Legislature, thus securing for themselves a permanent foundation. One of the main features of the organization is the formation of a library and cabinet.

The Academy meets on the first Monday of every month, at the lecture room of Sloan's Commercial College.

The following is a list of the officers:

President,	De Laskie Miller, M.D.
1*st Vice-President*,	J. N. Graham, M.D.
2*d* " "	J. R. Gore, M.D.
3*d* " "	E. C. Rogers, M.D.
Recording Secretary,	S. C. Blake, M.D.
Corresponding Secretary,	E. L. Holmes, M.D.
Treasurer,	R. C. Hamil, M.D.

Trustees.

James Bloodgood, M.D. J. P. Ross, M.D.
Ephraim Ingalls, M.D.

Committee on Admissions.

Thomas Bevan, M.D., Wm. Scott Denniston, M.D.
S. Schneider, M.D.

Committee on Medical Ethics.

H. A. Johnson, M.D., James Bloodgood, M.D.
David Rutter, M.D.

Committee on Medical Education.

Charles Duck, M.D., Ephraim Ingalls, M.D.
E. L. Holmes, M.D.

Delegates to American Medical Association.

Dr. S. C. Blake, Dr. J. L. Page, and Dr. J. N. Graham.

Delegates to Indiana State Medical Society.

Dr. J. L. Page. Dr. J. N. Graham.

STATISTICS OF MEDICAL COLLEGES FOR THE SESSION 1858-9.

The following statistical table includes all the schools we have heard from.

It is necessarily incomplete; but we shall keep the table standing, and endeavor to complete it in the May number.

If errors occur, we shall be glad to be corrected from any quarter.

	Students.	Graduates.
College of Physicians and Surgeons, (N. Y.)	180	39
University of New York, ...	350	128
New York Medical College, ...	107	25
University, Buffalo, ...	67	13
Albany Medical College, ...	—	48
Geneva Medical College, ...	—	—

	Students.	Gradnates.
Jefferson Medical College,	570	256
University of Pennsylvania,	410	140
Pennsylvania Medical School,	150	33
Philadelphia School of Medicine,	130	17
Pennsylvania University,	—	—
Rush Medical College,	127	31
University, Louisiana,	306	—
New Orleans School of Medicine,	140	36
Missouri Medical College,	—	23
St. Louis Medical College,	135	40
Massachusetts Medical College,	139	30
University of Louisville,	—	35
Kentucky School of Medicine,	103	28
Cleveland Medical College,	—	—
Ohio Medical College,	140	32
Oglethorpe Medical College,	50	13
Savannah Medical College,	34	8
University of South Carolina,	—	—
Memphis Medical College,	—	—
Shelby Medical College,	53	11
Medical College of Virginia,	—	20
University of Virginia,	—	—
University of Maryland,	—	—
Yale Medical College,	—	—
Castleton Medical College,	—	—
Berkshire Medical College,	—	—
University of Iowa,	—	—
Woodstock Medical College,	—	—
Medical College of Georgia (Augusta)	165	58
Dartmouth Medical College,	—	9
Atlanta Medical College,	—	—
University of Michigan,	143	—
Starling Medical College,	—	—
University, Vermont,	—	—
University, Nashville,	436	103
Medical College of Maine,	50	—

UNIVERSITY OF THE PACIFIC.

A new medical school opens in May next, at San Francisco, California. Its present faculty consists of Drs. Morrison, Rowell, Cole, and Cooper. Dr. Cooper formerly resided at Peoria, Ill.

TITLES OF SOME OF THE PRINCIPAL ARTICLES IN OUR EXCHANGE JOURNALS.

American Journal of the Medical Sciences.—Carcinoma, *Woodward:* Carbunclar Inflammation of the Lip, *Lente:* Criminal Abortion, *Storer:* Encysted Tumor of Ovary, *Miller:* Effect of Alcohol, Glycerine, etc., on Exposed Hearts of Frogs, etc., *Mitchell:* Colorless Blood Corpuscle, *Hammond:* Gangrene of the Lungs, *Darrach:* Fracture at Base of Cranium, *Lockwood:* Extension Apparatus for Fractures, *Chapin:* Isthmus of Panama and Hospitals of Havana, *Horner.*

North-American Medico-Chirurgical Review.—Obstetric Jurisprudence (No. 2), *H. R. Storer:* Medicine in China, *J. J. Kerr:* Exsection of Sciatic Nerve for Neuralgia of Stump following Amputation of Thigh, *G. C. Blackman:* Proceedings of Pathological Society of Philadelphia.

New York Journal of Medicine.—Management of Shoulders in Examining Chest, *Corson:* Diseases Treated at New York Eye Infirmary, *Bumsted:* The Hymen, *Thomas:* The High Operation for Stone in the Bladder, *Hewit:* Respiratory Sounds, *Herzka:* Proceedings of the Medical Societies and of the Practice of New York Hospitals, *Shrady.*

American Medical Monthly.—The Elliptical Artificial Tympanum, *Clark:* Surgical Cases, *Briddon:* Medical Practitioners of Ancient Rome, *Peaslee.*

Charleston Medical Journal.—Cerebral Neuralgia terminating by Serous Apoplexy, *Da Costa:* Chancre of the Uterus, *Kollock:* Yellow Fever treated as an Exanthem, *Ogier:* Arnica-Montana, *Talley:* Treatment of Dysentery, *Forwood:* Pathology and Treatment of Yellow Fever, *Porcher.*

Pacific Medical and Surgical Journal.—Syphilis and its Treatment, *Toland:* Diphtheria, *Blake.*

London Lancet.—Diphtheria, *Ranking:* Strumous Ophthalmia, *Henry:* Lithotomy in Children, *Adams:* Ischyl, its Water and Baths, *Bennet:* Case of Hydrarthrosis of Knee-joint treated by Tapping and Iodine externally, *Hodge:* Case of Ununited Fracture, *Davies:* After-Pains, *Willis:* Syphilitic Inoculation, *Lee:* Report of *Lancet* Sanitary Committee on Diphtheria; Diphtheria, *Ramskill:* Sanitary Condition of the British Army.

Montreal Medical Chronicle.—Myeloid Tumor, *Howard:* Case of Twins with Single Placenta, *Grant:* Hour-glass Contraction of Uterus with the Fœtus, *McGarvin.*

Nashville Journal of Medicine and Surgery.—Graduating Address, *Singleton:* Pathological Geology, *Shapard:* Fevers, their Identity, etc., *Johnson.*

Nashville Monthly Record.—Clinical Lecture on Hernia, *May.*

New Orleans Medical News and Hospital Gazette.—Chemistry of Respiration, *Crawcour:* London Correspondence: Hospital Reports.

St. Louis Medical and Surgical Journal.—"Bruit de Pot Fele," *Gilfillan:* Stomatitis Materna, *Pallen:* Large Doses of Ipecacuanha in Dysentery, *McPheeters:* Retroversio Uteri, *Bolinger:* Proceedings of the St. Louis Medical Society.

Oglethorpe Medical and Surgical Journal.—Rational vs. Routine and Book Practice, *Smith:* General Dropsy, *Dozier:* Case of Stabbing in Abdomen, *Byrd:* Case of Fractured Cranium, *Mims.*

Cincinnati Lancet and Observer.—Bronzed Skin with Disease of Supra-Renal Capsules, *Krause:* Opium in Parturient Process, *Logan:* Fœtal Malformation, *Browning:* Laceration of Scrotum, *Bowman;* Injury to the Knee-Joint, *Haughton.*

Ohio Medical and Surgical Journal.—The Cole Case, *Mixer;* A case of Gun Shot Wound, *Culbertson.*

Buffalo Medical Journal.—Partial Dislocations, *Mercer;* Esquisse of Parisian Medicine and Surgery, *Mack;* Erysipelas, *Gay;* Prof. Hamilton's Clinics.

Southern Medical and Surgical Journal.—Malarial Fever, *Jones;* Case of Lithotomy, *Hammond;* Horse-shoe Pessary in Retroversion of Uterus, *W. B. Jones.*

Virginia Medical Journal.—Puerperal Phlebitis and Purulent Infection, *Thweatt;* Epidemics of Piedmont, *Payne;* Irregular Uterine Contractions, *Dashiell;* Traumatic Cerebritis, *Brock.*

Atlanta Medical and Surgical Journal.—Chloroform in Labor, *Logan;* Cases and Clinics.

Louisville Medical Gazette (semi-monthly).—Inguinal Hernia, *Goodwin;* Gun Shot Wounds, *Cook;* Sulphur as a Dentifrice, *Wright.*

Semi-Monthly Medical News.—Statistics of Hernia, *Richardson;* Case of Traumatic Tetanus successfully treated by Atropia, *Editors;* "Nature and Art," *Speed;* Medical Education.

Peninsular and Independent.—The Whitney Case: Case of Idiopathic Tetanus, *Fairbank;* Veratrum Viride, *Patterson.*

Maine Medical and Surgical Reporter.—A Plea for the Children.

Medical and Surgical Reporter (weekly).—Veratrum Viride, *Foster;* Fractures through the Inferior Extremity of the Radius, *Smith;* Kameela, the new Anthelmintic, *Boisnot;* Regional Anatomy, *Agnew;* Tuberculosis, *Ziegler;* Pancre-

atics, *Lawrence;* Amaurosis Treated by Strychnia, *Jaquett;* Full Reports from Philadelphia Hospitals.

Boston Medical and Surgical Journal (weekly).—Parasitical Disease of the Scalp; Treatment of certain Diseases of the Lachrymal Passages, *Williams.*

American Medical Gazette.—Uterine Speculum, *Woodward;* Veratrum Viride; Palmer's Patent Hand, Arm and Leg.

Belmont Medical Journal.—Can Quackery be Stopped? Veratrum Viride, *Estep.*

The Scalpel.—"An entirely original Quarterly Expositor of the Laws of Health and Abuses of Medicine and Domestic Life."

American Journal of Pharmacy.

Journal of Materia Medica.

American Journal of Dental Science.

Dental News Letter.

Dental Register of the West.

WANTED.

Medical Students, to act as Agents for the *Journal.*

CHICAGO MEDICAL SOCIETY.

This is the "Cook County Medical Society" christened with a new name. We are happy to be able to state that it is in a flourishing condition. At its last annual meeting, the following gentlemen were chosen officers for the current year:

President, Dr. D. D. Waite.
Vice-President, Dr. Swayne Wickersham.
Secretary and Treasurer, Dr. N. S. Davis.

Delegates to the Americal Medical Association.

Dr. N. S. Davis, Dr. Swayne Wickersham, and Dr. O'Ryan.

Delegates to State Medical Society.

Drs. Woodworth, Amerman, Holmes and Clapp.

It is suggested that, when doctors fight duels, the weapons used should be pills. We fear the suggestion will alarm non-professional readers.

THE CHICAGO

MEDICAL JOURNAL.

VOL. II. MAY, 1859. No. 5.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

NOTES OF EXPERIMENTS ON THE EFFECTS OF WOORARA INTRODUCED INTO THE STOMACH.

By Daniel Brainard, M.D., Professor of Surgery in the College at Chicago, Illinois.

It is generally believed, that certain poisons, readily absorbed, and quickly fatal when applied to recent wounds, are entirely innocuous when taken into the stomach. The venom of serpents is referred to as the type of this class, and the South American poison, *curara*, *woorara*, etc., is in this respect ranked with it.

This belief, universal, it is said, in South America, seems to be founded on the fact, that bites of serpents and wounds from poisoned arrows, have been treated by sucking, without injury; and that game killed by poisoned weapons is eaten without ill effects; but in recent times it has received a confirmation, from the views of Messrs. Bernard and Pelouze, sanctioned by the Academy of Sciences, which has caused it to be regarded as one of the established facts of science; certain physiological doctrines and theories of the action of medicinal substances even have been built upon it. Hence its importance.

It will be perceived, on a moment's reflection, that this supposed fact is contrary to all analogies in physiology.

That any substance whatever should be absorbed uniformly and quickly from wounds, and cause death, and be in solution entirely incapable of being taken up by the gastro-intestinal mucous membrane, implies in this latter tissue a power of choosing and of rejecting, which modern researches have demonstrated it not to possess.

Facts also exist, unnoticed for the most part, militating strongly against this belief. Fontana found that the venom of the viper, when applied to the eyes of pigeons, caused the lids to swell so as to close them.* This led him to doubt its entire want of action when applied to mucous surfaces. The following is his description of his experiment to determine this question:

"Chance having presented me a great number of vipers, large and vigorous, I was unwilling to let the opportunity pass of deciding, for the benefit of posterity, so important a point of natural history." "I cut the heads off eight vipers, and expressed their venom, which was received in a small spoon, of which there may have been thirty drops and more. I introduced the whole of it within the beak and esophagus of a pigeon which had fasted for eight hours. In less than a minute it appeared much weakened; two minutes after it began to vacillate, fell at length upon its side, with a sort of convulsions, and in six minutes was dead. The beak, the esophagus, and the crop, even to the gullet, were inflamed and livid, and the blood appeared blacker than ordinary. These parts were so much discolored, that they appeared to approach a state of mortification and gangrene."†

It would, no doubt, have surprised the laborious and accurate Fontana, whose discoveries many recent observers have often reproduced, without in the least being aware of it, if he could have foreseen that his authority would be invoked, as it is in some recent works of great general accuracy, in support of the other side of this question, which he flattered himself to be settling for posterity.‡

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*Traite du Venin de la Vipere, etc. Florence, 1781. Vol. 2, page 307, Supplement.

† Vide op. cit.

‡ Ib. page 90.

With the South American poison of the Amazon, the *Ticunas*, the experiments of Fontana were far more numerous and conclusive.

"I made a pigeon swallow six grains of this poison, and it died in twenty-five minutes. I repeated this experiment on two other pigeons, and they both died in thirty minutes."* These experiments were repeated on six rabbits, three Guinea pigs, and two pigeons, with the same results. Fontana adds, "I have observed in general, in making the above experiments, that the animals died with more difficulty, or were unaffected, if the stomach was full when the poison was swallowed," and concluded as follows: "I deduce as an established fact (*verite de fait*) that the American poison taken internally is a poison, but that a sensible quantity of it is required to kill even a small animal."

Four, and even six grains, were found by Fontana to have little or no effect when swallowed by rabbits.

M. Vulpian found a concentrated solution of curara applied upon the back of a frog, caused death in four or five hours.†

In 1854, while ignorant of the above views, I formed and published the opinion that curara is absorbed from the stomach of living animals. I introduced five grains of it dissolved in two drachms of distilled water into the stomach of a pigeon which had been fasting for twenty-fours. The bird remained twenty-four hours longer without food or drink. I then killed it; no fluid was found in the intestinal canal. The whole length of this was carefully washed with one drachm of distilled water, and this injected under the skin of another pigeon. No effect was produced. This experiment was repeated on two other birds with the same results. As the quantity employed was sufficient to kill twenty-five pigeons in five minutes when injected under the skin, it is difficult to avoid the conclusion that it is absorbed.‡

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* See Berard's Physiology, vol. 2, Art. Absorption.

† Gazette Medicale for 1858, p. 638.

‡ Essay on a New Method of Treating Serpent Bites and other Poisoned Wounds. Chicago, 1854. P. 17.

These experiments, while they demonstrated to my satisfaction the fact of absorption, misled me entirely as to the perfect inactivity of the poison swallowed in large quantity.

1858. I injected six grains of curara dissolved in two drachms of water into the stomach of a rat. In twenty-five minutes he began to be affected, and died in forty-five minutes. This experiment was repeated upon two other rats with the same effect. In both the stomach was found distended with air, and the right side of the heart with black blood.

In these experiments, I took especial pains to prevent any of the solution from entering the larynx, as it is well known that the bronchial mucous surface absorbs much more rapidly than does the gastro-intestinal, and I withhold several experiments on rats and Guinea pigs, because I could not be sure that a minute portion of the solution had not entered the air passages. While feeling sure, then, that the solution of woorara is absorbed from the gastro-intestinal mucous membrane of birds and rats, with sufficient rapidity to cause death quickly, I have not found the same to be the case with rabbits, in which I have injected as much as thirty grains in solution, without giving rise to severe effects.

This insusceptibility of the stomach of certain classes of animals to the action of poisons is a fact well known, and depends upon the absorbing power of the tissue. The absorbing power depends upon the thickness, vascularity and density of the part, and the rapidity of the circulation. The bronchial mucous membrane is fine, and very vascular, and therefore absorbs all poisons, including woorara, rapidly. The coats of the blood-vessels also absorb quickly. Both these tissues absorb much more rapidly than the stomach, which, being covered with mucus, takes up most solutions more slowly.

The stomach of the *carnivora* absorbs more rapidly than the first stomach of the ruminants, or the crop of birds, so that it often happens that these animals take noxious substances with the food with impunity. An example of this, often cited, is that of the goat eating the cicuta without injury.

The skin absorbs more slowly than the mucous membrane of the stomach, being covered with dry epithelium. The quality

of the solution also has an effect upon the capacity of absorption.

All that can be inferred from the experiments of Bernard is, that in dead animal membranes absorption is very slow. Experiments on dead membranes authorize no conclusion in regard to the living, the activity of the imbibing power being much greater in these latter.

This doctrine, that there are certain substances in solution which exert no great cauterizing or chemical action on the stomach, which are not absorbed in the least degree by it, but which are readily taken up by other membranes, is a retrograde step in physiology, and ought to be scrutinized before being adopted. Orfila, in the last edition of his Treatise on Toxicology, seems to adopt it. Taylor, who, in the first edition of his work on poisons (1848), stated that woorara, in a large dose, is a poison for all animals, has, in the recent edition of the same work, given the views of Bernard without comment.

Carpenter, and other physiological writers also adopt it. Under these circumstances, there seems little use in combating an error so deeply rooted; but this consideration should not prevent us from adhering to and promulgating what we deem the true doctrine of absorption.

Further experiments are required to determine many facts in regard to absorption. Does the membrane by which a substance may be absorbed exert an influence over its action afterwards, on the fluids or solids of the economy?

The nature of the active principle of woorara cannot be considered as entirely determined. Boussingault in 1827, made an analysis of it, in which he detected an uncrystallizable substance, called curarina. Subsequent examinations seem to have confirmed the result of his analysis. Pereira, and nearly all the English authorities, state that *strychnos toxifera* yields the base of it; but Taylor, in the recent edition of his work, asserts that the plant from which it is prepared, is the *cocculus Amazonum*, and does not belong to the genus strychnos.

In my "Essay on a New Method of Treating Serpent Bite," etc., I expressed the opinion that the woorara acts in the same manner as the serpent venom, and is probably identical with

it. More numerous and careful observations, while they have confirmed my views of the similarity of the mode of action of these two poisons, have also disclosed differences which seem to forbid the positive conclusion that they are, *in every respect*, identical. Without dwelling upon these differences at length, it may be sufficient to state, that the woorara never produces the dark discoloration in wounds which is so constant and characteristic an effect of serpent bite.

The facts and experiments herein adduced seem to justify the following conclusion:

1. Woorara (curara), contrary to the received opinion, is absorbed from the stomach of birds, etc., often, under favorable circumstances, with sufficient rapidity to cause death.

ARTICLE II.

CASES ILLUSTRATING THE PRACTICAL USE OF THE OPHTHALMOSCOPE, AS A MEANS OF DIAGNOSIS, IN CERTAIN DISEASES OF THE EYE.

BY E. L. HOLMES, M.D., OF CHICAGO, ILL.

[Continued from page 220.]

Case VI. Circumscribed Retinal Infiltration.—Patient was a young man, of delicate constitution, twenty-two years of age, whose eyes I had frequent opportunities of examining, through the kindness of his physician, a friend of mine. This young man, although so near-sighted, that, in reading, he was obliged to bring the book almost to his nose, was following a course of study in the scientific school of the city in which he lived.

His eyes becoming more easily fatigued after using them in this way, he employed a pair of powerful magnifying glasses. He soon required those of a higher power, and at last, was obliged to resort to a single convex lens (magnifying ten times), which he held, while reading, before the left eye, the right being kept closed. He continued this practice for six months, which gradually produced such an effect, that he was able to read but

a few moments without causing conjunctival congestion, pain and heat in and around the eyes, with increased secretion of tears. Patient finally became alarmed, and sought the advice of a physician. Even at this time, after a little rest, the eyes appeared, externally, perfectly normal, with the exception of a trifling congestion of the conjunctivæ. The left eye was found to be much more near-sighted even than the right.

On examining the retina of the former with the ophthalmoscope, it was observed to be normal, except in the immediate vicinity of the optic nerve (papule). This last was changed from its normal, yellowish color to a light red, except a small portion of its outer half. To the inner (nasal) side of the nerve, was a very bright yellow deposit, surrounding two-thirds of its circumference, and extending in all directions from it. This was so thick that it completely covered the vessels of the retina where they passed through it.

In descriptions of this kind, it must be remembered, that the papule of the optic nerve is not, perhaps, more than a line in diameter; the arteries and veins are exceedingly fine, scarcely so large as those of the healthy conjunctiva bulbi. The deposition of which I have just spoken, could not be more than three-tenths of an inch long, and one-tenth wide, embracing the nasal side of the nerve. Now, in examining the posterior portions of an eye with reflected light, we look through the crystalline lens of the patient, which magnifies the objects behind it about twenty-four times, unless its power be modified by the lens of the ophthalmoscope. Viewed through this lens, the papule appears about an inch, or perhaps a little less, in diameter, and the arteries and veins proportionately large. In the case before us, the deposit assumed a distinct form, irregular in outline, two or more inches across its longest, and two-thirds of an inch across its shortest diameter.

There is every reason to believe, that this abnormal product, from the manner in which it covers the retinal vessels, is a deposit of plastic lymph, involving the whole thickness of the substance of the retina within the limits in which it is found.

In the right eye, the optic papule, as well as the portions of

the retina, in its immediate vicinity, is highly congested, although no lymph has yet been deposited.

Undoubtedly, in the beginning, gentle antiphlogistic treatment, with due care in using the eyes, and a proper selection of glasses (if they had been found really necessary), would have prevented in a measure, at least, the progress of the disease.

Remarks.—The preceding cases, although simple, and perhaps of comparatively little interest in themselves, illustrate the use of the ophthalmoscope in establishing the diagnosis of a numerous class of ophthalmic disease.

It is true, its ability has been more than questioned by oculists of considerable reputation. It has been styled a very pretty "scientific toy," without practical use.

But, any one who is familiar with the history of ophthalmic science during the past six or eight years, must observe the increasing estimation with which the instrument is regarded, not only in Europe, but also in this country. In the *New York Journal of Medicine* (March, 1859) Dr. F. J. Bumstead, assistant surgeon of the "New York Eye and Ear Infirmary," in his report of cases, states that the ophthalmoscope "is in constant use in the Infirmary," and "is regarded as an instrument of great value, which could not now be dispensed with."

In examining cases of the slightest capsular or lenticular opacity; of effusion of blood into, or formation of floating bodies in the vitreous humor; of the numerous diseases of the retina, choroid and optic nerve, the assistance of the ophthalmoscope is invaluable. Abnormal conditions, which formerly could only be suspected, now become objects of perception, as readily *seen* as a perforation of the membrana tympani, or a polypus in the meatus.

We are aware that, unfortunately in very many cases, in which the instrument is of assistance in making our diagnosis, the disease is utterly incurable. But, even this discovery, however unpleasant it may be to the humane physician, and however painful to the afflicted patient, is better far than *doubt*, for the physician may save himself the mortification of attempting to accomplish what he can never perform; and the patient may escape a useless, and perhaps painful and *expensive* course of

treatment. In medical science, and especially in diagnosis, the *fact*, the *truth*, should be the first object sought by the true physician, for this is the foundation upon which all real progress rests, and upon which every physician should base his advice and treatment.

The practical application of the instrument, and we may say the same of the microscope and stethoscope, is sometimes attended with difficulties; phenomena are occasionally observed, which cannot be interpreted upon any known principles of science. But probably these difficulties will gradually be removed, as experience shall furnish sufficient facts in the pathology of ophthalmic disease. Even with these difficulties in the way, there is scarcely an instrument, which, in its especial sphere, is able to assist the medical observer to such an extent as the ophthalmoscope.

Objections have been raised to the use of the instrument, as being injurious to the patient. They are, however, wholly groundless. Undoubtedly, too much light reflected even into a healthy eye, and especially into one affected by a disease accompanied with photophobia, would naturally tend to increase irritation. But it must be remembered that in a very large majority of instances in which the ophthalmoscope is required, the patient can bear, without trouble, the necessary degree of light, which need not exceed that of a gas light, or even the flame of a common candle. When the eye is peculiarly sensitive to light, a plain glass reflector, without amalgam, will throw sufficient light into the eye, without causing discomfort to the patient. When due regard is paid to the amount of light employed, and when the examination is made as rapidly as possible, there can never be danger of ill effects arising from it. I have seen very many patients examined with the ophthalmoscope, and have examined many myself, without ever having seen one who complained of injury.

It may be sometimes necessary to dilate the pupil with atropine. This almost always facilitates an examination, since without it the light from the reflector so contracts the pupil that it often becomes difficult to obtain a distinct image of the internal portions of the eye. The influences of atropine upon the eye is perfectly

harmless, although the continued dilatation of the pupil, by admitting more light than usual, may be attended with a little inconvenience to the patient for a day or two. It is always well, in such cases, to inform the patient of what he may expect in order that he may be prepared, if necessary, to leave his ordinary employment for a couple of days.

But, fortunately, it is not in cases of grave disease alone that the ophthalmoscope may lend us valuable aid. There are a large number of people in society who are constantly injuring their eyes in an almost endless variety of ways. Even before the patient experiences trouble enough to induce him to seek the advice of a physician, there is a congestion of the retina and choroid, which can be detected with the ophthalmoscope, as is proved by those who have systematically examined a large number of individuals employed in occupations which are trying to the eyes. Many of these individuals go through life without serious inconvenience, and yet are always more or less troubled with their eyes. Others, less fortunate, perhaps being obliged to continue in occupations which tend to render their condition worse, are finally compelled to seek other means of obtaining a subsistence. The physician, who can examine such patients *early*, can be guided by the revelations of the ophthalmoscope in giving the patient rational and beneficial advice. Experience proves, that many, who follow advice thus given, have been greatly benefited.

Even in some of the graver, non-malignant diseases, dependent upon inflammatory action, the physician may be able to recognize the commencing process, long before he could do so without the ophthalmoscope. Treatment may arrest the progress of the disease which, without it, might result in plastic exudation, a termination almost always fatal to vision.

ARTICLE III.

FOREIGN BODIES IN THE AIR PASSAGES. CASE OF INTESTINAL CONCRETION.

BY CHARLES BRACKETT, M.D., ROCHESTER, IND.

The following cases of foreign bodies in the air passages, which were never removed by surgical interference, are somewhat interesting:

July 8th, 1852.—John Hochheim, of Marshall county, brought to me his boy, some two or three years of age, who not long before had got a German copper coin, of about the value of one-third of a cent—a kreutzer, I think, it is called—into the trachea. The patient was troubled with occasional attacks of suffocation, spasmodic cough, and suffering considerably for breath. I could detect by auscultation the seat, or location of the coin in the right bronchus. The mother would not consent to have tracheotomy performed. I directed quiet, and general attention to health telling what results might follow. Some weeks later, they brought the child again, willing that an operation might be performed. The coin had ulcerated its way down in the lung, so that I could, or did not recommend an operation. I saw the child occasionally after that, for a couple of years, when his health became better, and finally quite good, as I am informed. The patient is now living in Plymouth, Marshall county, in tolerable health.

Case II.—L. E. Rannells, of Rochester, some five years since, during my absence from town, got a grain of burned coffee in the lung, through the glottis. It found its way low down, filled one of the bronchi, produced severe constitutional disturbance, finally became fixed, and, I believe, is yet in the lung. The boy is healthy, but has grown in weight, or stature, scarcely at all, since the accident. I examined him frequently, and for a long time, could tell very nearly the precise location of the kernel, but, for the past two or three years, have not auscultated him.

Case III.—Shortly after harvest, last fall (1858), a man came to me, from the edge of Marshall county. His name I

did not take. Said his boy, some nine years of age, had got a water-melon seed in the wind-pipe. I told him what I could do for him, or what nature *might* do. He went home, consulted his wife, and concluded to let nature do her best. I saw the man week before last, who said that, during a severe attack of coughing, the melon seed, much decayed, was thrown from the wind-pipe of the boy with considerable of pus, and the patient was then quite hearty; that, for a long time, he tried to induce his wife to have an operation performed, but she preferred leaving the case to nature, and both believed he would die.

These three cases, I believe, could all have been speedily relieved by an operation shortly after the reception into the trachea of the foreign bodies. Yet they all, ultimately, did well, so far as they have progressed. I shall endeavor to keep watch of the two cases where the offending cause is not yet removed.

I saw the following case of intestinal concretion, April, 1849: Mrs. Wertz, in labor, as she and her attending physician supposed, for the past twenty-four hours before I saw her. A vaginal examination revealed to me that the rectum was impacted with a mass as nearly as large as a child's head. I gave an injection of inspissated ox gall, dissolved in warm water; after a short time, the woman became easy, comparatively speaking, got up to stool, and cried out that it was coming (meaning the child). I told her to bear down, which she did, and was delivered of a mass, about five inches in diameter. It was composed, I thought, mostly of magnesia, with fecal matter. She had been in the habit of eating carb. magnesia freely, for the relief of pyrosis and gastrodynia, was an inveterate opium eater; had had for some time previous a sort of dysenteric diarrhœa, and could not believe that there was any obstruction in the bowels. Two weeks afterwards, she was safely delivered of a healthy child, and became hearty, as usual for her. At that time, I was rather too fastidious, or over nice, to analyze, or measure carefully, a fecal mass of that kind, and it was thrown out. It was in size, however, fully as large as the head of a fetus at full time, as nearly as I could judge from ocular measurement.

[Remarks.—We have taken the liberty of publishing the case of intestinal concretion, which, probably, was not intended for that purpose by Dr. Brackett.

In reference to the cases of foreign bodies in the air passages, while they show the power of the lungs to resist the deleterious action of substances so placed in certain cases, and although many similar cases may be found on record, they do not by any means justify the practice of deferring an operation, if the surgeon be called upon soon after the accident. The operation of tracheotomy for a foreign body, is not, in general, a dangerous one, if performed immediately. If deferred until inflammation has been developed, the result is often fatal.

How far a surgeon might be justified in advising against an operation when the foreign body is metallic, and the air passages have become so habituated to its presence that little inconvenience is felt, it is impossible to determine, such cases being rare. Metallic produce less irritation than non-metallic bodies, and when they become so imbedded as to be no longer moveable, it is obvious than an operation would not be advisable. The practice of Dr. Brackett seems to have been in accordance with this view, and was successful.—Ed.]

ARTICLE IV.

CASE OF UNUNITED FRACTURE OF THE RADIUS OF ABOUT TWELVE WEEKS' STANDING CURED BY SUB-CUTANEOUS PERFORATION OF THE BONE.

By A. L. McARTHUR, M.D., of Joliet, Ill.

Mr. H—, a laborer, aged thirty-five years, called at my office, October, 1856, to consult me in regard to an ununited fracture of the radius. The history he gave of his case is as follows:

Four months previously, while assisting in raising a building, he fell some fifteen feet, upon his left side and shoulder, fracturing the radius, and bruising the arm and shoulder severely.

The fracture was reduced, and treated by a physician in the neighborhood, in the usual manner, and with apparent success.

After four or five weeks, however, it was ascertained that the bones had not united. The doctor then put the arm into a starch bandage. Five weeks after, they were found, by examination, to be still ununited. A consultation was had, and it was decided to irritate the bones by rubbing them together, in order to get up an adhesive inflammation. This was done, and the arm put in a starch bandage. After the lapse of three or four weeks, the bones were found ununited.

The appearance of the limb when I first saw it, was soft, flabby, and atrophied, with a slightly oblique fracture of the radius, a little above the union of the middle and lower third. The usual modes of treating such fractures having been thoroughly tried, and failed, I resorted to the treatment by perforation, practiced and recommended by Professor Brainard. Procuring an instrument similar to an awl, save the end, which was flattened, I perforated the soft parts directly over the fracture, passing the instrument between the ends of the bones, nearly to the opposite side, the flattened surfaces of the instrument being at a right angle with the surfaces of fracture. The instrument was then withdrawn from the bones, which being turned to the right, and the soft parts to the left, the instrument was thrust through the fracture at a new point. Withdrawing the instrument from the fracture, the operation was reversed, by rotating the bones to the left, and the soft parts to the right, and the instrument passed nearly through again. The limb was then loosely dressed in the ordinary way, with splints and roller. On the following day, contrary to expectation, the limb appeared as before; no apparent inflammation or swelling; slight tenderness at the point of perforation. I dressed the forearm with a starch bandage, and the man returned to his home in the country. Four or five weeks after, he returned, the bandages were removed, and the bones were found to have united. He carried the arm in a sling for a few weeks, and, greatly to his surprise and gratification, he had a sound and useful limb.

ARTICLE V.

CASE OF PROTRACTED GESTATION.

BY DR. W. R. STONE, OF MANHATTAN, INDIANA.

Case.—Mrs. K., aged twenty-four years, sanguine-bilious temperament, and of usually good health, lost her husband on the 17th of March, 1858, from which time, as the catamenia did not manifest itself, she deemed herself probably pregnant, which supposition induced her to consult me as early as the last of May, 1858, when I gained from her the following history:

Last menstruation on the 25th of February, 1858. Last sexual intercourse on the 10th of March, 1858. Feels somewhat different from a former gestation (having had one previous gestation), especially in an absence of gastric irritation, with which she was much troubled in the first.

As no urgent symptoms were present, I dismissed my patient, by informing her that she was likely pregnant, and by requesting her to acquaint me with any derangement of her general health that might occur, when we would more fully investigate her condition.

No further information of the case till the 13th of July, 1858, when she informed me that undoubted quickening had occurred on the 8th of July, making one hundred and thirty-three days from last catamenia, and one hundred and twenty days from last sexual intercourse.

From this time up to the 15th of December, nothing of unusual interest transpired, at which time (15th December), "spurious pains" occurred, lasting twelve hours, and regularly occurring on the eighth day, for five weeks, when they came up every second or third day, till the 3d of February, 1859, at which time, and with a favorable labor, she was delivered of a female child, weighing eight lbs.

During the last two months of gestation, the movements of the fœtus were very strong, causing much suffering to the mother.

Resume of dates:

Number of days from last catamenia to delivery,			.	343
"	"	" sex. inter.	"	. 330
"	"	" catamen. to quickening,		. 133
"	"	" sexual cong.	"	. 120

Development of Infant.—The osseous system was extraordinarily well developed, the sub-cutaneous processes being well fitted, and firm; the articulations firm and compact; the cranial bones immovably united by the sutures, and the posterior fontanelle entirely closed,—the anterior also closed by the inner tablet, inasmuch as no pulsation was observable. The skin was freely organized, and of that fine tint characteristic of a three months infant. In a word, the general appearance of this infant was fully up to that of most infants three months old.

Peculiarities of Placenta, Liquor Amnii, etc.—About one-fourth of the structure of the placenta was osseous matter, arranged in lamella, and irregular granules. The placenta about the usual size. The liquor amnii normal in amount, of a light straw color, and quite viscid; uniting, also, a strong, urinous odor. The membranes of sufficient firmness to form a basket that would support the child's weight, no doubt.

Character of Mrs. K.—The lady has always sustained an irreproachable deportment, and stood high in the estimation of those knowing her intimately. Indeed, she is distinctly reserved, and modest in her social intercourse with friends.

Opinion and Character of the Physicians who have seen, and are acquainted with the circumstances of the case.—The following physicians have seen, and examined the infant: Drs. Layman, Knight, Heavenridge, W. M. Denny, and R. B. Denny. They all entertain the opinion that this was a case of protracted gestation, and are fully satisfied that the child is legitimate.

It is but just to say of the above named physicians, that they sustain a good character with their professional brethren, and deservedly, too, as they are qualified for their business.

With this brief history, the case is submitted to the profession, only adding the assurance, that no effort has been made to "bolster up" the case on false statements, but a plain statement of facts have been aimed at.

TRANSLATIONS FROM FOREIGN JOURNALS.

[From Brown-Sequard's "Journal de la Physiologie."]

TWO MEMOIRS ON THE VARIATIONS OF COLOR OF THE VENOUS BLOOD.

BY PROFESSOR CLAUDE BERNARD.

[Read to the Academy of Sciences, Aug. 9 and Sept. 6, 1858.]

TRANSLATED BY THOMAS BEVAN.

I. On the influence of the two orders of nerves which determine the variations of color of the venous blood in the glandular organs.

In a communication, made to the January meeting for 1857, I showed that the glandular venous blood and the muscular venous blood presented an absolutely opposite color when considered during the active state of these organs.

When a muscle acts and contracts itself, the venous blood that is poured out is very dark. When the gland is secreting, and expels the product of its action, the venous blood it furnishes is, on the contrary, of a scarlet color, at times entirely identical with arterial blood. Whence it follows, in glands of intermittent secretion, there exists an alternate coloration of red and dark in the venous blood, according as the organ is in the one or other of the two physiological conditions, denominated states of function and repose.

After having established these preliminary facts, I continued my researches, with the purpose of determining what were the modifications of composition, corresponding to these so marked differences of color. I have succeeded, I believe, in finding the explanation. But, before entering upon the exposition of the experiments which relate to the purely chemical side of the phenomenon, I believe it indispensable to make known the physiological conditions of the nervous system, which regulate these special chemico-organic actions. I will even insist upon this subject, because the study of the mechanism by which the nerves act to effect the chemical phenomena which occur in the

living organism, has always appeared to me the capital object which should pre-occupy the physiologist.

I desire to show to-day, that the particular chemical conditions which in the glands make the blood appear sometimes red, at others dark, are determined by the influence of two nerves, which have distinct origins, and possess in some sort, antagonistic action. In other words, that there exists a glandular nerve, which leaves the color of the venous blood red, and another which makes it become dark. I will show afterwards, that each of these nerves, to act chemically on the blood, modify, in an opposite manner, the mechanical phenomena of the capillary circulation; so that it establishes a necessary correlation, easy to be understood, between the chemical modifications the blood experiences in the organic tissues, and the mechanical conditions of the capillary circulation which are under the immediate influence of the nerves.

In order to the better understanding of the facts which are to follow, and for facilitating the study to those who wish to reproduce them, I ought to say, that all the results of the experiments here in question have been obtained upon the sub-maxillary gland of the dog, which is particularly proper for this sort of research, on account of its intermittent secretion, which renders very clear the variations in color of its venous blood.

II. The nerve that causes the red appearance of the venous blood in the vein of the sub-maxillary gland is a filament which detaches itself behind the lingual branch of the fifth pair. But it is only joined to the fifth pair; it in reality comes from the seventh, and is especially constituted by the *chorda tympanæ*. However it may be, this glandular-nervous filament may be easily reached at the point where it separates from the lingual to go to its distribution in the sub-maxillary gland, accompanying its excretory duct.

Now, when we consider the sub-maxillary gland provided with all these nerves, in a state of repose, that is to say, when nothing passes by its secretory duct, it is observed that the venous blood possesses a dark color. But, if at this moment the glandular nerve above mentioned is made to act, the blood

which was previously flowing dark, becomes more and more red, and soon appears as entirely so as the arterial, and permits the establishment of this physiological proposition, that, when the action of the tympanico-lingual nerve is manifested energetically, the venous blood of the sub-maxillary gland appears red, while it becomes dark when this nervous filament fails to act, or when its action ceases to preponderate.

Nothing is more easy than to give the experimental proof of this special influence of the tympanico-lingual nerve on the color of the venous blood. In effect, when, after having exposed the glandular vein, and the nervous filament in question, we determine a gustative impression by putting a little vinegar in the mouth, we see the blood become rapidly ruddy in the vein, because the gustative impression produced on the tongue, and carried to the nervous centre, has been transmitted by reflex action through the chorda tympanæ. The proof of this interpretation is given immediately; for, if we cut the tympanico-lingual filament at the point where it separates from the lingual nerve, we observe the venous blood of the gland to remain dark, and frem this moment, notwithstanding the instillation of vinegar on the tongue, notwithstanding the gustative sensation perceived, the red color fails to re-appear, because the nervous route by which it received this modifying power on the blood has been obstructed. But if, taking this glandular nerve at the point of section behind the lingual, we irritate by means of galvanism its peripheral end, which still holds to the gland, we soon see, under the influence of this artificial excitant, the blood in the glandular vein become red, and again take its dark color when the excitation has ceased. This last experiment furnishes, therefore, a new argument to prove that the red color of the venous blood of the sub-maxillary gland is in direct relation with the activity of the tympanico-lingual nerve, and that its dark color depends, on the contrary, on its state of physiological inactivity.

But it will not do to believe that, in case of repose of the gland, that the dark color of the blood seen is nothing but the passive result of the paralysis, or default of action of the tympanico-lingual nerve. This dark color of the blood is itself due

to the action of another nerve, which acts in rendering the blood dark, and whose permanent influence is shown to be antagonistic to the tympanico-lingual, whose action appears to be more properly of an intermittent character.

III. The nerve which renders the venous blood dark in the sub-maxillary gland comes from the great sympathetic, and arrives in the gland accompanying the arterial branches of the external carotid, which go to it; the one small, penetrating the gland at its posterior and superior part; the other, the principal glandular artery, enters at the umbilicus of the gland by the side of its excretory duct. These glandular filaments of the sympathetic nerve come off, for the most part, from the superior cervical ganglion, they anastomose elsewhere, with filaments coming from other sources, and particularly the mylo-hyvidien, at the point where this nerve crosses the track of the facial artery.

When we consider the sub-maxillary gland in the physiological state, with all its nerves in repose, we have said the venous blood is dark; but that comes at the moment, from the activity of the great sympathetic, which renders the blood dark, predominating that of the tympanico-lingual, which renders it red. This is very easily proven; for, in this condition, if we cut all the filaments of the great sympathetic, which go to the gland, we see the venous blood lose its dark color to take a ruddy tint, which becomes permanent, because the nervous influence of the sympathetic is interrupted, and does not reach the gland.

But, if we now re-establish artificially the influence of this nerve, and excite by galvanism the peripheral end of the sympathetic filament, which still holds to the gland, we soon see the venous blood become very dark, to retake its red color when the galvanization of the nerve has ceased to act. We may, therefore, formula a physiological proposition inverse to that expressed for the tympanico-lingual, and say that the venous blood of the sub-maxillary gland is dark at all times, when the sympathetic acts, and is so in proportion as the action of this nerve is energetic.

By what precedes, we have acquired the experimental demonstration, that the variations of color of the glandular venous blood are due to two nervous influences, well determined and

entirely distinct. But, how understand the mechanism of this influence of the nerves on the blood? There is no anatomical continuity, and, in consequence, no direct chemical action possible, on the part of the nerves upon the globules of blood, to modify their color. It is necessary, therefore, that there should be other intermediate phenomena between the nervous action and the chemical modification of the blood globule. In fact, these intermediate conditions exist, and are constituted by the diverse mechanical modifications which each nerve brings to bear in the capillary circulation of the gland, modifications which we will now examine.

IV. The mechanical conditions of the capillary circulation determined in the sub-maxillary gland by the tympanico-lingual nerve, and by the sympathetic, are exactly opposite.

When the tympanico-lingual nerve is excited, the venous blood appears red, and at the same time, there supervenes a considerable increase in the activity of the circulation. In proportion as the venous blood becomes redder, it circulates more and more readily, and the quantity which flows from the vein is shown to be much more considerable.

When the great sympathetic acts, it renders the venous blood dark, and at the same time lessens the activity of the circulation. The blood flows from the vein in less quantity, as it is more dark; even if the action of the sympathetic nerve is tolerably energetic, the sanguinous flow may be completely arrested in the vein, to reappear when the excitation of the sympathetic ceases, and to become accelerated anew, if the tympanico-lingual nerve is acted upon.

These results, which are constant, teach us, therefore, that the red and dark coloration of the venous blood is in a determined ratio to the rapidity of the circulation in the sub-maxillary gland. But this rapidity itself, of the course of the blood, cannot be effected by the nerves, which do not act, in any case, directly on the sanguinous fluid. The contraction and dilatation which we have seen to exist in the vessels of the gland can alone account for these modifications in the properties of the blood.

[To be continued.]

ABSTRACT OF AN ARTICLE ON THE "ANATOMY AND PHYSIOLOGY OF THE WHITE CORPUSCLES OF THE BLOOD (LEUCOCYTES)."

BY DR. C. ROBIN.

[Translated from the "Journal de la Physiologie," by E. L. Holmes, M.D., of Chicago.]

The "white globules" (*Leucocytes*) is a name applied to those elements of the body, which are observed, either in the form of cells, or of free nuclei. These last, few in number, are spherical, without nucleoli, readily contracted and corrugated, by the action of acetic acid; the cells, of spherical form, are distinguished by irregularities of surface, and, above all, by being partially coagulated and dissolved by water, acetic acid, etc., which render them pale, and cause the appearance of nuclei, varying in number from one to four, when their granules have not been replaced by oil granules, which are often found in them.

§ I. *The distribution of the white globules in the system.*

These corpuscles comprise an element, which is found in the greatest number of animal tissues. Their anatomical and physiological history is of the greatest interest, on account of the variety of their forms, of the readiness with which they spring into existence and modify their structure. They are found in all parts of the body, where the red corpuscles are traced, and also in the lymph; in the smaller veins and arteries they usually lie in contact with their lining membranes. They are found in blood coagulated, either after death, or in a ligated artery, in an ordinary clot, obtained from bleeding, or from an apoplectic extravasation.

We obtain them from the splenic, renal, portal and pulmonary veins, perhaps in greater numbers, from these veins in the fœtus than in the adult; in the lymphatics of the neck, testis and groin, often in masses perceptible to the naked eye. It is in these various situations, that these bodies have been called respectively white globules of the blood, lymph, or chyle globules.

We meet them in all the fluids of the body, whether normal or abnormal.

They are especially numerous on the mucous surface of organs in a state of irritation, as, for instance, in the mucous of the bladder in certain conditions; they give the peculiar color to pus and so called "mucous;" tubercles also contain a perceptible portion of these globules.

§ *II. The form and composition of the white globules.*

The white globules assume forms varying with the places and conditions in which they are developed. They may be ovoid polyhedrous, or roughened like the surface of a mulberry. These forms soon, however, become perfectly spherical, when the causes which produced these differences of form have passed away. The various degrees of irritation and inflammation seem to exert great influence upon the forms of the white corpuscles; whenever these influences are alike in the different mucous-membranes, the corpuscles all present precisely the same characteristics.

In a 1000 parts, there are found:

Of water, . .	790.00	Fatty matter, .	26.50
Salts, . . .	43.00	Organic substances,	140.00
Iron, . . .	a trace.	Albumen, . .	a trace.
Lactates, .	undetermined.	Other substances	undetermined.

§ *III. Origin of the white corpuscles.*

The white corpuscles are produced in all the various portions of the body in which they are found. Although inflammation is favorable to the production of the blastema, in which the corpuscles find their elements, it is not *necessary* to this development. Their presence in the vitreous humor, etc., prove that they may be developed in the tissues in which they are found, without the influence of glands. In several abnormal conditions, as intermittent fever, hypertrophy of the spleen and liver, typhoid fever, dysentery, and any form of cachexia, these corpuscles are developed in great numbers, producing the state known as leucocythemia.

§ *IV. Relation of the white to the red corpuscles.*

It was formerly believed that the white corpuscles are imperfectly developed red globules of the blood.

There is no evidence of this. Minute examinations of animals in an embryonic state, prove that the white corpuscles do not make their appearance till after the red globules are developed in considerable numbers.

§ *V. Development of the white corpuscles of pus.*

Like other elements of the system, the white corpuscles sometime appear in places where they do not normally exist: for instance, between the tissues of a muscle, in the form of abscess. Liquid tumors (abscess) are formed upon the same principle as solid tumors of different kinds, and, like these last, they invade the surrounding tissues, producing atrophy by pressure. Frequently, even bone is absorbed under the pressure of a tumor. The tissues surrounding an abscess are also gradually absorbed, till finally the pus is discharged, either through the integuments, or into one of the internal cavities. The development of the white corpuscles is generally far more rapid than cells which comprise solid tumors. That these pus globules are not lifeless red corpuscles, is shown by the fact, that they live, develope, become hypertrophied, and pass through all the modifications peculiar to a distinct class of organized cells.

We are able to watch the production of these corpuscles only on the surfaces deprived of the external integument.

In such conditions, we observe the following phenomena: at first there is an exudation of minute transparent drops, perhaps slightly colored with red corpuscles, forming a granular blastema; in the course of half an hour, sometimes less time, there are formed minute pale, transparent globules, granular, and often somewhat colored. The course of development goes rapidly forward till pus is formed, and when this has once taken place, a repetition of the same process continues.

§ *VI. Hypertrophy of the white corpuscles.*

The white corpuscles become hypertrophied whenever they

are confined for a long time in collections, more or less minute. They become enlarged and granular in softened portions of the brain or spinal marrow; in epithelial and glandular tumors; in small purulent deposits in the lungs. In venous dilatations, sanguineous and synovial cysts, we find the white corpuscles granular and nearly double their usual size.

VII. The destruction (disappearance) of the white globules.

The duration of the white corpuscles is different in different regions of the body. Those of the lymph disappear in their passage through the blood. The *manner* in which they disappear is wholly unknown. That they become atrophied and rapidly pass away is seen in cases of leucocythemia, where the number of these corpuscles, largely increased, soon becomes normal.

There is no proof that they are changed to red corpuscles. In the very early stages of embryonic life, although the red corpuscles are very light colored, they do not resemble the white corpuscles.

It is well known that purulent collections sometimes become completely absorbed. The corpuscles often seem to become firmly molecular, and dissolved in the serum of the blood. But what, then, becomes of them at this stage of destruction is unknown.

RESECTION OF THE KNEE JOINT.

[Discussion in the Society of Surgery, Paris, Nov. 3, 1858.]

M. Larrey presented, in behalf of Dr. Daniel Brainard, of Chicago, Illinois, a successful case of resection of the knee joint, and a table of many of the operations of this kind which have been performed up to this time.

On the occasion of the case communicated in the name of M. Brainard, M. Robert requested that the society should not judge the operation without knowledge of the final results of these operations. He asked if, after resection of the knee,

anchylosis of the leg with the thigh, takes place; for, if not, it would be a very bad operation, one which he has no desire to perform.

M. Follin said, that M. Robert was already answered by facts, and we may affirm, that the immediate results are altogether as favorable as after amputation of the thigh in the continuity. The statistics which he had published, prove that osseous or strongly fibrous union generally takes place. The method of operating is not without its effect, and that of M. Ferguson appears to merit the preference. The operation ought to remain in the science, and the objection that the limb operated on does not grow, is not well founded, as a shoe with a high heel can supply the deficiency in point of length.

M. Broca thought that the deficiency of growth of the member is one of the gravest objections which can be urged against resection of the knee joint in young subjects. The want of solidity is not of frequent occurrence in the lower member.

M. Larrey, in speaking of a successful result, did not wish to pronounce finally upon resection of the knee. The failure to report unsuccessful cases renders statistics of operations necessarily incomplete. He thinks that resections of the kind can only be useful when bony union occurs.

M. Marjolin did not advocate the operation. Half the patients which he has seen operated died. The English are passionately fond of resections, but, considering the number of these operations performed at London, we might demand if some of the patients might not have been cured without any operation.

M. Giraldes could not agree with M. Marjolin. He had seen resections at London, which succeeded perfectly. The English surgeons had resolved the question of union. After this operation, the question of when it is proper to perform it (of indication) only remained to us to decide.

M. Maisonneune spoke against the operation.

M. Larrey reminded the society, that the English surgeons are not alone in favor of this operation. MM. Texter and Heyfelder, of Germany, had also performed it.

At the following meeting, M. Giraldes took up the subject

again. He said that, from tables prepared by himself from the *Dublin Medical Journal*, the *Lancet*, the *Medical Times*, and *Edinburgh Monthly Journal*, it appears that the operation may be divided into four series:

1,	from 1762 to 1830,	19	operations,	12	deaths.
2,	" 1830 to 1854,	31	"	5	"
3,	" 1854 to 1856,	51	"	9	"
4,	" 1856 to 1858,	26	"	7	"
	Total,	127		33	

[NOTE.—We have, at the present time, knowledge of four other operations of resection of the knee joint, not yet, or only recently published. One of these is by Dr. J. M. Warren, for anchylosis; one by Dr. Burnham, of Lowell, also for anchylosis; one by Dr. J. W. Freer, of Chicago, for caries of the femur; one by Dr. Brainard, for the same cause. The first two of these seem to have been so far advanced as to justify the belief that a cure was effected. The latter was not as yet sufficiently advanced to determine that point; one having been performed about three months since, at the Mercy Hospital; the other, about eight weeks ago, at the U. S. Marine Hospital, Chicago. However, it may safely be affirmed of both these, that they are quite past the period of danger, and that they both seem in the way of recovery, with useful members.

We propose to return to this subject at no distant day. M. Giraldes has correctly stated it as one of indication only, as there can be no doubt of its value when properly employed. It is only by abuse that it can fall into discredit.

Since writing the above, we have noticed the report of two additional cases by M. Ferguson; both resulted fatally; one from disease of the lungs, the other from disease of the kidneys. If the surgeon were less distinguished and careful than M. Ferguson is known to be, we should be disposed to inquire if, in these cases, the operation was not contra-indicated.]

ON THE ARTIFICIAL PRODUCTION OF BONE.

BY DR. LEOPOLD OLLIER.

[Translated from the "Journal de la Physiologie," by E. L. HOLMES, M.D., of Chicago.]

Conclusions, and their Application to Surgery.

I. The reproduction of bone proceeds from the inner surface of the transplanted periosteum. Wherever a portion of this membrane can be transplanted, new bone is formed, either adherent to the bone from which it was taken, or entirely independent of it, according as it is suffered to remain, partially connected with the rest of the periosteum, or is completely detached from it.

II. In transplanting portions of the periosteum, bone of various forms and dimensions can be obtained, circular, in the form of the figure 8, spiral, etc., according to the shape and position of the flap, consequently, we have perfect control over the direction and extent of the process of ossification.

III. Bones thus developed are not simple, shapeless concretions of calcareous matter; they consist of true bone, found with all the anatomical characteristics of true bone. In proportion to their development, they resemble normal bony tissue, with an external compact layer, and a medullary cavity in the interior. This cavity is filled with a marrow, resembling, in all respects, that of healthy bones.

IV. The new bone is developed in the sub-periosteal blastema, which exists normally upon the inner surface of the periosteum. This proposition is demonstrated by an examination of the formation of the new bone, and by removing this layer of blastema, when the reproduction of bone is suppressed, or at least, for a time, arrested.

V. This blastema consists especially of free nucleoli, enclosed in cells, floating in a semi-liquid, transparent, or finely granular material, and mingled with more or less fibrinous elements.

These various embryonic elements develop and multiply in the exudation (at first amosphous) furnished by the capillaries of the periosteum.

VI. The sub-periosteal product, which is observed the first few days following the transplantation, is generally cartilaginous; but the succeeding development of bone progresses without this intermediate element. This cartilage, moreover, differs in structure and appearance of its anatomical elements, from the normal cartilage of the epiphysis.

VII. An analogous membrane is found after a time, upon the surface of bone, from which the periosteum has been removed.

VIII. When we removed a bone, or a portion of a bone, leaving its periosteum attached to the tissues which normally cover it, we observed at the end of a certain time, that this bone, or portion of bone, is reproduced to a quarter or less extent. The reproduction is sometimes perfect. The soft tissues cannot supply the place of the periosteum; nor do they directly contribute to the ossification.

The reproduction of bone is in proportion to the amount of periosteum preserved in the wound. When a segment of bone, embracing its whole thickness, is removed, its reproduction depends solely upon the periosteum.

IX. After the resection of the articular extremities of two contiguous bones, a new articulation is formed, if the capsule and ligaments are left on all sides, connected with the periosteum of the resected bones. The two bony extremities are remodelled independently.

The surgical deductions, which we may draw from our experiments, are numerous; but we will only mention the most important, which refer to resections, and to autoplastic operations.

In resections, art should not be content simply to remove the diseased portions; it should also endeavor to reproduce the fragments of bone which it has destroyed. Experimental physiology suggests to us the means; it teaches us why resections have hitherto been so seldom followed with reproduction of bone, and shows what course we should follow in the future. The preservation of the periosteum is of the highest importance. We have endeavored to demonstrate in a recent work, that, in spite of certain inherent anatomical and physiological difficul-

ties, this is practicable, partially at least; and we have proved that clinical observation has already fully confirmed the truth of the assertion. As regards autoplasty, we think that the continuation of ossifying secretions from the wide surface of the transplanted periosteum, increases its importance and extends its application. Since, in animals, we obtain bone wherever we transplant periosteum, we can expect similar results, under certain circumstances, in man, by obtaining portions of periosteum within the flaps. Innumerable difficulties arise in our mind, when we reflect upon the realization of this idea, which we should see in order to avoid them. But they do not seem wholly unsurmountable.

Periosteal astroplasty (operations, whose object is to reproduce bone by means of transplanted periosteum) is now a rational undertaking.

There is still another application of these principles not directly illustrated by the experiments just reported, but yet in a measure related to them, which we have verified in especial experiments; we refer to the rational mode of diminishing the chance of suppurative inflammation of the bones, after amputations, and of inducing thereby union of the flaps by first intention. The periosteum unites with bony more readily than with any other tissue. The nature of the organizing elements which cover the inner surface of the membrane, and its especial function in ossification, enable us readily to comprehend the causes of this result, which experiment also demonstrated.

We believe that it will prove very useful after amputation, to cover the end of the bone and medullary canal with a small piece of periosteum.

Experiments upon animals illustrated the feasibility of this plan already proposed, but too often neglected, as it seems to us, without sufficient cause. The reasons which lead us to recommend it now, are not those formerly given; they are based upon physiological facts. The difficulty of the operation ought not to influence us, when so much advantage is at stake. We need fear no accident; at most, this step in the operation may prove simply useless.

EXTRACTS.

NURSING SORE MOUTH; ITS NATURE, CAUSE, AND TREATMENT.

By T. J. W. Pray, M.D., Dover, N. H., Orator for 1857.

Mr. President, and Gentlemen of the New Hampshire Medical Society:

It would be far more pleasing to address you at this time upon some general topic, that has a remote bearing upon the science of medicine, than to discuss some known disease about which there is an honest difference of opinion; for, in the one, there is a chance for digression and amplification of the subject, perhaps more becoming an oration before this Society; in the other, there is no opportunity to go into the realms of fancy, or to make use of elegant and forcible sentences, but we have to grapple with disease as it exhibits itself in our daily business: to dress up our thoughts in the simple, unadorned style of truth, in order to properly describe the operations of diseased action. Contrary, then, to the usual practice which is becoming too prevalent, I think, for scientific men, I have chose to walk out of the customary prescribed path, and shall, with your indulgence, give some thoughts upon a complaint of some importance to the medical profession, and about which there is apparently much obscurity as to its exact nature. I do this with the hope that the thoughts thrown out here may induce a more thorough investigation among physicians in this State as to the affection.

My subject on this occasion will be "Nursing Sore Mouth, as it is called—its Nature, Causes, and Treatment."

With the exception of Drs. Wood and Bell, no author, so far as we can learn, has incorporated into his works "Nursing Sore Mouth" as a distinct or separate disease, or treated it as such. This strange silence of standard writers and best nosologists to speak of any affection "peculiar to lying-in women," characterized by the phenomena that usually accompany this complaint, scarcely admits of a satisfactory explanation, unless it is unobserved in some localities; or if so, it is regarded as nothing else but some new development of nature to show us the incomprehensibility of her often unfathomable laws; or at most, is deemed only another form of some ailment long known to the medical world, and described under the head of those diseases with a like assemblage of symptoms, and therefore thought not worthy

of special classification and description. The latter supposition is far the more probable.

Previous to the year 1830, all history is silent as to the existence of this anomalous affection. Dr. Hale of Massachusetts first published a paper upon this subject, and described it as a disease familiar with women during gestation and lactation.—(See Com. of Mass. Med. Soc., vol. 5, 1830.) Since which time, Medical Journals have occasionally contained brief, but imperfect sketches as it existed in different parts of the United States. Some of these are nothing more than a few well marked cases, either recommending some favorite remedy that succeeded admirably in the practice of the writer, or containing a few facts hardly capable of being woven into a theory, as to the origin and nature of the complaint. But from what is written, we infer, that it prevails equally in the colder climates of New England, and the British Provinces, as well as in the warm and more genial temperature of the Southern States; that it exists in isolated cases along the coast of the Atlantic ocean from Maine to Florida; that inland towns surrounded by a humid atmosphere, away from the invigorating breezes of the coast, witness oftener its ravages; and that variety of soil and local causes act but feebly in its production, only modifying, but not controlling its development.

It would seem that some localities are comparatively exempt from this sore mouth. We are unable to find any adequate description of it as being common in the Middle States. The distinguished Dr. Dewees of Philadelphia, so well known by his valuable contributions to the science of medicine, never met with a solitary instance of this affection in that city. But notwithstanding this, we are of the opinion it may be sometimes observed in this section of our country, as it is known to exist in the same latitude, only a few miles distant. Perhaps it may not be attended with that severity and obstinacy with which it visits other places; hence the reason of its not being there described.

This disease is by no means indigenous to the United States. Other lands acknowledge its prevalence, but our information upon this point is very imperfect. In Great Britain, especially the northern part, it is said to be a rare disease. In Germany and France it is more frequent. "In the former country," remarks Dr. Gage,* "whole wards in some of the lying-in hospitals are crowded with women laboring under its severity." "At the Paris Hospital," writes Dr. Field,† "it is quite com-

* Manchester, N. H. † Bangor, Me.

mon in females, and the French physicians believe it traceable in some form or other far back into antiquity."

In this connection it may not be amiss to note, that for the most part, nursing sore mouth is sporadic; yet like many other diseases, it sometimes travels out of its accustomed path, and invests itself with intractable management. It is more obstinate in some seasons than in others; and yields, according to some writers, not so readily to treatment. In Berkshire county, Mass., "a mountainous region," it existed as an epidemic in 1833; and in 1836, at Middletown, Connecticut. We have an impression, that in the State of New York, it has had a similar history. In this respect, it is not unlike the apthæ, which Van Swieten observed in his time. "In Holland," he remarks, "this malady spread itself epidemically in the year twenty-eight" of the seventeenth century; and yet he mentions the singular circumstance, that during his sojourn of five years at Vienna, he never witnessed a single case of apthæ, and gives as a reason for this, "that the complaint was most familiar to cold and wet climates."

Almost all American writers, who have considered this subject, have supposed it a *nova pestis*. But, in this, we believe they are mistaken. We think it as old as the medical art. Before the article of Dr. Hale, it was, as we have before written, doubtless placed under the general head of those diseases technically called, Apthæ, and accordingly, all its literature we find credited to this class of complaints, whether rightfully or not we shall presently see. In the days of Hippocrates, an apthous state of the mouth, dangerous and obstinate, was occasionally noticed. He tells us of a nursing female, who lay ill of the fever, and "whose tongue was roughly set with tubercles, like hail." Then he speaks of a "Thrush" of a grave character, and there can be no question as to its identity with what is called the sore mouth of nursing women. His language is, "Thrush in the mouth is bad in women with child;" that "fluxes that are apthous are a mischievous sign in women with child;" and that "a thrush of the mouth brings a flux of the bowels to women with child." Certainly this answers well the description of the "modern Thrush," which has been termed the "*opprobium medicorum*," on account of its virulence and unyielding nature, as it presents itself in some individuals. Retelaer, in his work, "De Apthis," makes mention of a singular and like affection, which he noticed "in the moist regions of Zealand." Van Swieten, in his Commentaries, has discussed the question, "Why apthæ of the mouth in women with child presage abortion?" assuredly indicating that a kindred disease was not then

unknown, and troublesome to women in the puerperal state. His description of some forms and symptoms of the "Thrush" he met with, corresponds in almost every particular to the malady we are considering. If we come down to the present century, the opinion prevails to some extent, that it is not of modern date. In a recent conversation with the learned and venerable Dr. James Jackson, of Boston, he stated that he had frequently seen this sore mouth, early in his professional career. He began his profession in the year 1800, and occasionally noticed it from that time to 1818, when he renounced the practice of midwifery for other important duties.

Thus much is known of its general history. Let us now turn to a more particular consideration of Nursing Sore Mouth.

It has been examined by writers under the various titles of "Sore Mouth in Nursing Women;" "Stomatitis Nutricum;" "Puerperal Anæmia;" "Stomatitis in Pregnancy, and during Lactation;" and simply "Stomatitis." It is thus called, because of its supposed familiarity with females in gestation and lactation, and existing at no other time.

This disease is sufficiently identified by these various synonyms; and there is but little probability of misapprehending what is meant by writers, by the term, "nursing sore mouth," unless it be confounded with those affections controlled by similar laws of existence, and not unfrequently seen in like condition of the system. We mean, of course, those diseases described under the general head of apthæ. We propose te examine, in a manner as concise as possible, the relation of nursing sore mouth to, and points of correspondence with apthæ, the only complaint it in the least resembles, and for which it may be possibly mistaken. Dr. Ely, of New York, remarks on this point, "We have thought in comparing the description given of 'chronic thrush' with that given by some writers of this affection, that if the terms were changed the description would be improved."*

Before, however, instituting a parallelism between these two forms of disease, we would remark, that nursing sore mouth is characterized by inflammation and ulceration, and is never so named, unless ulcers or their premonitory symptoms are observed. Dr. Knapp, formerly of Iowa, has referred to two articles; the one published by Dr. W. Channing, of Boston, on "Notes on Anhæmia, principally with its connection with the Puerperal state;" the other by Dr. M. Hall, on "Mimosis Inquieta," which, if acknowledged to be examples of this disease,

* Boston Medical Journal, vol. 39, page 41.

would go to show, that ulceration is not always necessary to constitute this affection. Let us briefly examine these two articles. Of the sixteen cases of *Anhæmia*, reported by Dr. Channing, only one had any soreness of the mouth, and it cannot be inferred from the report of this case that it was an annoying attendant,* or formed a peculiarity in the cases narrated. In the *post mortem* examination, no remark is made of inflammation or ulceration being observed in the mouth or intestinal tube. Dr. Hall says nothing of the soreness of the mouth in his description of *Mimosis Inquieta*, which he certainly would have done, had it been a prominent symptom, as all will bear testimony, knowing with what minuteness and accuracy he enumerates the various phenomena of this class of diseases. The affection of Drs. Channing and Hall are, evidently, *anæmia*, and were so considered. It is barely possible, that ulceration may not be visible, and still the disease exist; if so, future investigation will alone elucidate this question; the past has failed to do so.

But let us return from our digression. Are there any real distinctions between apthæ and the sore mouth of nursing women, which can be defined, or made the basis of any variety of treatment? When can the line of demarkation be drawn?

Now, to properly appreciate the difference, or similarities of these two affections, it must be done by comparing the prominent symptoms of each, course of disease, or the physical lesions of either. In doing this, we do not propose to go into an extended examination of this question, but a statement of the chief and leading points of difference and resemblance may not be inappropriate. They simulate each other in many respects.

1st. They both, as we have already seen, occur epidemically, without any discoverable connection with season and temperature. This fact is acknowledged by several writers, and it is needless to enlarge thereupon.

2d. They have the same laws in regard to location. Some places are entirely free from apthæ. It is thus with nursing sore mouth.

3d. *In their physical lesions.* Nursing sore mouth commences on the edge of the tongue inside of the cheeks, and then extending to the mucous lining of the œsophagus, and to the stomach. Apthæ also attacks the same parts. Here then is no disagreement among writers, who have described the pathology

* See New England Medical Journal, vol. 1, page 157.

of both complaints. They are said to differ, if at all, in the extent and severity of the lesions. The former is supposed to be more severe in the character of the ulceration, than common apthæ.

They do not affect the mouth alone, but similar lesions are discovered elsewhere. Dr. Brainard,* President of Rush College, says he has met with the same kind of ulceration in the genital organs, with white ulcerated patches about the orifice of the vagina and urethra, which caused great smarting on urination. This state of things continued in one female during the first and second lactation and pregnancy. Its second reappearance was in so severe a form as to endanger her life and render necessary the induction of premature labor, when it ceased there, and attacked the mouth. The writer has reported several cases attended with the same pathological appearance. Van Swieten also was a witness to the same state of the parts in apthæ. He says, "I have sometimes seen ulcuscules in the genitals without any symptoms, that would give reason to suspect anything of a venereal disease; and they have been at first troublesome by their intolerable itching, afterwards extremely painful, with a swelling of the labia; and I have found them exactly answerable to those ulcuscules, which bear the name of thrush, and are by the ancients described and called by the name of *apthæ*." Hippocrates saw the same occurrence.

4th. There is a similarity among writers in the description and resemblance of the pustules, or ulcers; and like discrepancies, as to the actual state of the diseased parts. This must be noticed, as one investigates, and compares the language used in the delineation of the various phenomena of both complaints. For instance, Dr. Hale says, "nursing sore mouth commences on the edge of the tongue, with a hardened pimple." Dr. McGugin, of Iowa, and others affirm, that round whitish or yellowish vesicles, which become the foci of a diffused inflammation are first seen. Dr. Taylor, of Florida, describes the state of the parts thus: "The tongue is covered with small, white pustules, closely connected together." Others, because they do not have the opportunity to watch the progress of this malady in its earliest stages, attest that ulceration with an inflamed condition of the entire mucous membrane of the mouth is the exact appearance. Now, let us look at the description of common *apthæ*.

Dr. Wood describes them thus: "The vesicles are small, oval, or roundish; white, or pearl colored." They are first ob-

* See Boston Medical Journal, vol. 41, page 373.

served on the edge of the tongue. Andral divides them into three species; the popular, the vesicular, and pustular. Billiard into two stages. The first consisting of small, white milary tumors; the second of superficial ulcers. Gardien denominates them tubercles. Others say that pustules and ulceration are seen at one and the same time. These vesicles, says Dr. Condie, "enlarge and are surrounded by a circle of inflammation," just what happens in nursing sore mouth.

Again, the vesicles in both are often distinct, scattering, and sometimes numerous and confluent. When distinct in either affection the symptoms and ulceration are of a mild character, and usually confined to the mouth; but when confluent they assume a greater degree of severity and obstinacy. We will briefly condense the excellent description of M. Guersent, on this latter kind of apthæ, and then we can more readily see the points of comparison with, and the likeness to the disease in question, especially when we speak of its symptoms.

This species of apthæ is painful and obstinate, and not of frequent occurrence. At the Hospital de la Maternete of Paris, it is rarely, if ever seen. M. Cruveilhier never observed it while he had charge of that Institution. It begins with chillness, headache and fever, which often moderates without entirely ceasing, even when the vesicles are all developed. These vesicles extend from the mouth to the fauces, and are said to reach the stomach, producing severe diarrhœa, and abdominal pains, and from their severity, sometimes terminate in death. Food when taken causes anguish; and deglutition is more or less difficult by reason of the large number of pustules, ulcers, and surrounding irritation covering the roof of the mouth, tongue and fauces, "Ces pustules sont quelquefois si nombreuses qu' elles parasaint comme confluents. Elles simulent assez bien l'eruption varioleuse dans le cas au elle occupe la bouche, le voile du palais, et une partie des fosses gutterales." Dr. Wood remarks, "This variety occurs most frequently in adults, and is said to attack preferably women in child-bed." What then is the difference between this kind of apthæ and nursing sore mouth?

Once more, the vesicles ulcerate in both affections, and the ulcers are of an oval form with now and then ragged edges; and over their surface is generally thrown a whitish or yellowish film. Often they are of a raw and inflamed appearance. Their size varies, but they are nearly the same in every respect. In nursing sore mouth, they are sometimes about as large as "half the size of a three-cent piece to that of a fifty cent piece."—(*Dr. Judkins.*) Dr. Hale states, "I have seen

considerable loss of the substance on the edge of the tongue." Dr. Hall relates an instance of apthæ where a like circumstance was noticed. In some patients, several small ulcers seem to coalesce, and constitute one large ulcerated surface.

5th. There is a striking coincidence, as regards the kind of constitutions in which both complaints are found. It is confessed by all, that apthæ are present equally among the feeble in health, as well as the most robust. When, however, they are seen in adults, they are more frequently among persons of a scrofulous diathesis, or those constitutionally delicate; in children, "among those of a relaxed habit with the predominance of the lymphatic system."—(*Condie.*) It is in this latter class of subjects that the disease is best studied, because apthæ are oftener distinct and of a milder character in adults.

Nursing sore mouth also attacks chiefly those of a lax fibre, thin in flesh, pale, and of an anæmic appearance.*--(*Dr. Judkins* of Ohio.) Dr. Sumner, of Connecticut, thinks those inclined to phthisic pulmonalis, are its most frequent victims. Others believe it occurs oftener in persons of scrofulous habits. Dr. Backus says, that "women of a vigorous constitution and good general health are as subject to it as the most feeble." Prof. Ware, of Harvard University, writes, "I have not thought any particular constitution is more exposed to this complaint than another; but those women who have any exhausting causes operating upon them during pregnancy are most liable." It is the writer's experience that the disease seizes the most feeble in health, as well as the strongest. We know of one female of robust and plethoric habit, possessing, seemingly, all the lineaments of perfect health; vigorous in mind and body, and capable of great endurance, who has borne two healthy children, and, at both periods, was compelled to wean her child, or die from the prostrating effects of this complaint. The sister of this lady, equally strong and healthy, had also this soreness of the mouth.

It is not to be understood, that all persons whose constitutions are enfeebled will be attacked with an apthous condition of the mouth, for this is contrary to experience. A large majority of women go through pregnancy and lactation without any touch of it. Its existence is only an exception to a general rule. Both apthæ and nursing sore mouth attack whole families. If one is afflicted, another will be liable, although it may not be at the same time. We have noticed children of

* See N. Y. Journal of Medicine, vol. 14, January No.

the same parentage to be thus affected during gestation and lactation.

Thus far we have referred to a few of the more prominent resemblances of these two affections; let us now consider the supposed points of difference, for they are thought by many to be unlike.

1st. *In the color of the tongue, lips—the inside of the cheeks—the external appearance of ulcers and even the whole lining membrane of the mouth and fauces.* These are of "a peculiar red or deep pink color," says Dr. Backus, and others. This is deemed a distinguishing mark or trait of nursing sore mouth. But, notwithstanding this, Van Swieten, and many other authors describe some kinds of apthæ, not familiar to females alone, and not dissimilar to the phenomenon above represented. Apthæ occurred in their practice "flame colored, *yellow, livid, or even black,*"* arising from and depending upon a difference in constitutional habit of the person affected.

In the next place, they are believed to be distinct, because nursing sore mouth is said to be a disease incident to women alone during the last stages of pregnancy, and the process of lactation, while apthæ are noted in almost all stages of life among males as well as females; the young as well as the old. If this distinction could be made to appear, it would go far to prove their dissimilarity; but here, unfortunately, there is not consonance of opinion among writers, some affirming one thing, and some another.

Dr. Backus is quite positive that there is a marked difference, and writes thus of nursing sore mouth: "It is in the first place confined to females, no man ever had it, or ever will; it attacks those who are nursing, or those who are advanced to the last stages of pregnancy." Dr. Hale confirms this statement. Dr. Taylor remarks, "In an extensive practice of seven years, I have never met with a single case of sore mouth in man or in woman who did not give suck, which was in the least analagous" to the species now under consideration. But all observers, who have had equal opportunities to notice the peculiarities of both complaints, are not thus agreed. Dr. Knapp thinks it is not an affection belonging to women alone—"We have repeatedly seen men, and boys, subjects of this complaint; also girls as well as suckling women."† Dr. Shanks, of Tennessee, says that at Memphis, chronic diarrhœa in humid miasmatic localities presents in males many of the general

* See Van Swieten's Commentaries.

† N. Y. Journal of Medicine, vol. 14.

symptoms of this sore mouth, accompanied with the peculiar raw, clean and red tongue, (sometimes an attendant) together with ulceration of the mouth. Dr. Ely, of New York, speaks thus: "It is believed that a similar affection is found in the male sex."

In this diversity of opinion, it is impossible to arrive at the true answer to this question, except by future observation. We can conceive, nay, it may not be improbable, that the view of Drs. Knapp and Ely may be correct, if gestation and lactation act as predisposing causes, only so far as they tend to bring the female constitution to a state favorable to the development of an apthous condition of the mouth. We might infer from analogy, also, that this would take place, provided a like pathological condition could be induced in the male. Perhaps the reason why the disease has been judged to belong exclusively to females is its frequency with this class of persons. Their habits, and often unnecessary confinement, in secluding themselves from the invigorating and healthful influences of air and exercise strongly predisposes them to be its subjects. In addition, there are many depressing influences brought to bear on the naturally delicate female constitution, which males are entirely exempt from, or can more readily withstand; hence their more frequent immunity from this malady.

Doubtless the comparison might with profit be carried farther, but this much must suffice. The symptoms of apthæ are not very fully delineated, as they exhibit themselves in adults, and it is for this cause we are unable to longer pursue the points of identity. Whenever they have been seen, they have been regarded as a local affair, or at least, only a complication of some other affection, and hence but little has been written thereupon. It is in works upon the Diseases of Children, that we find the most reliable descriptions of common apthæ. We shall, however, endeavor to indicate other striking similarities as we proceed in the enumeration of some of the usual symptoms of the sore mouth of nursing women.

Symptoms.—Before the appearance of what constitutes the peculiarity of this complaint there is what may be termed the formative or irritative period.* The system is brought by a train of circumstances into a condition adapted to its existence. The digestive apparatus is enfeebled—assimilation imperfect; the functions of the liver are deranged; and the bowels constipated. There is often a vague uneasiness in the epigastric

* The same symptoms, as occur during this period, we have observed in common apthæ.

region, attended with acidity, flatulence and abnormal secretions. "Vomiting, which is usually common in the morning during gestation, is seen not unfrequently after lying down at night." "In addition, one will notice a general restlessness, or malaise, tendency to low spirits, a feeling of lassitude," and debility, and indisposition to exertion of any kind. Some kinds of food create so much pain and distress as to require the administration of an anodyne. This was quite noticeable in a strong, healthy female, who came under our observation. In the meanwhile, the appetite is variable, but in a very large number of cases morbidly ravenous, and seemingly unable to be satisfied.

The disease is sometimes connected with, and indeed preceded by sore nipples, by an eruptive affection of the skin and especially the tarsi, and sometimes the corner of the lips, and external labia. There are not a great many cases, however, where these phenomena are observed.

Those who are accustomed to this complaint are aware of its approach by the loss of the sense of taste, especially that of salt. The food is destitute of its usual relish.* Dr. McGugin observes that even before its inception there is a sensation of sinking, and depression, together with prostration. The progress of the atack is usually gradual, and is marked by successive stages. But some have found a different experience. Dr. Backus, for instance, says, "the accession of the disease is often very rapid from apparent health. It comes on violently in the evening, while during the day there had been no approach of it." Others have not met with the same suddenness of attack.

The first prominent symptom which attracts the notice of the patient, is a scalding sensation, similar in feeling to that produced by hot fluids when taken into the mouth. In looking at the irritated part, one will find heat and inflammation of the mucous membrane. Sometimes a general soreness of a considerable portion of the mouth without the existence of vesicles or ulcers. This may continue for an indefinite length of time. Now and then is noticed a different state of things. Red spots on the sides of the tongue come forth, together with a few whitish vesicles. These may be distinct, or confluent. Accompanying these the whole lining membrane of the mouth, the lips and tongue are in a highly vascular, and in a congested state,

* Any one who has had apthæ will bear witness that the same sensations obtain. In the case of the writer, he has had loss of taste, and the peculiar scalding sensation of nursing sore mouth, which we shall presently describe. Other medical men with whom we have conversed confirm this.

resembling in some respects the lips of patients in an anæmic condition, or rather those whose blood is not sufficiently oxygenized. The small capillary vessels are burdened with dark, venous blood. The tongue is often of a smooth, polished appearance, free from coat, slightly swollen, and "early in the attack along its edges may be observed little granular elevations, extremely sensitive." The sufferer complains of pain in some parts of the mouth, as "if a thorn were in the affected part." Little vesicles soon become the centre of an inflamed circle, which, when the least particle of food or drink, except of the blandest kind, touches, causes extreme anguish. The lymphatic system is unduly excited, and the salivary glands pour forth large quantities of saliva, often of an acrid nature. So severe is the disease in some individuals, that the lips become tumified, and over which are continually running the secretions of the salivary vessels.

If the vesicles be few, the disease is easily manageable, and will yield to suitable remedies; or at least will be kept in abeyance, allowing the mother to nurse the child. Oftentimes, a gentle cathartic operates to check or rather modify its character and limit its progress. On the contrary, if constipation predominates at any time, there will be an increase in the intensity of the symptoms.

The complaint, not unfrequently, unless under the influence of curative treatment, assumes a far different and graver aspect. Ulceration begins and spreads, especially in lax and strumous habits, over a larger surface. The vesicles multiply, and form, with their ragged borders on the soft parts of the mouth,—then pass to the fauces—into the posterior nares, along the bronchiæ, and involve the lungs in an irreparably diseased condition. As we have before said, they creep down the mucous lining of the œsophagus to the stomach, and then induce a new train of symptoms. The soreness of the mouth by this extention of ulceration does not abate one particle, but continues on with the same obstinacy.

When the ulcers reach the stomach, one will notice a slight tenderness of the abdomen in the region of the epigastrium; more prostration; swelling of the extremities; "a dark, crescentic circle under the eyes," and an anxious look of the countenance, which is often remarked in severe cases of nursing sore mouth. Now the suffering is great for the surfaces, if the ulcers are preternaturally endowed. Diarrhœa sets in and becomes an obstinate symptom. The discharges are free and copious, of a thin and watery consistence,—sometimes of a darkish color; and in more protracted forms, ash-colored, or inclined to light;

fermented and frothy. Dr. Judkins says that "floating flocculi, of a mucous appearance, may be frequently seen after a recent evacuation of the bowels." But the diarrhœa may not be persistent, for it often alternates with costiveness. In such instances, the soreness of the mouth is intensified with an increase in the depth and extent of the inflammation.

The exhaustion from this diarrhœa is often harassing to the patient, and next to the ulceration is one of the most troublesome symptoms of this affection. This, together with the want of sufficient nourishment, often debilitates to an alarming degree. The countenance, and in fact, the whole exterior of the patient, bear impress of the extreme severity of the lesion, which is thus warring upon the vitality of the system, and unless checked in its death-work, will terminate in hopeless recovery. The body becomes emaciated; hectic fever ensues, and if the person attacked has a predominance of the lymphatic system, or is of a "strumous diathesis, tuberculosis will be developed with cough, hæmotypsis perhaps," and other fatal symptoms close the scene.

While nursing sore mouth is in its incipient stages, there is often considerable feverish excitement, together with dryness of the skin, and an elevated pulse. The mind is irritable and despondent, and there is an undue excitement of the nervous system. Sometimes the disease passes from the acute to the chronic form—the fever subsides, and the appetite, unless diarrhœa is an attendant, is improved. When, indeed, any exhaustive drain is going on in the system, then, some febrile symptoms may remain to weary out the strength of the patient.

There are some cases of nursing sore mouth where it seems to terminate in confirmed anæmia. One will find in this class of patients, extreme paleness of the face and lips; palpitation; dyspnœa; loss of appetite; vomiting when the least food is taken; throbbing in the head; vertigo on assuming the erect posture; intolerance of light and sound; wakefulness; starting during sleep; paleness; transparency of the ears and fingers; great and alarming oppression about the chest; great nervous irritability, and scanty urine with a whitish sediment. It is needless to add, that these are extremely critical cases.

In this connection, it may be as well stated, that a large majority of cases are not accompanied with such virulence, especially if under the control of judicious treatment. But whenever ulcers occur, it is a cause of solicitude, and needs, especially in some constitutions, the fostering care of nurse and

physician, lest the complaint proceed to uncontrollable bounds. Some persons are so predisposed to this affection, as to never go through a single lactation without being attacked. Even when a female, once affected, has not borne children for quite a number of years, and on becoming pregnant, it will again appear, and so on to the end of child-bearing. The mucous membrane of the mouth in some tends strongly to commence a new ulceration and derangement, however slight the exciting cause. Again, there is another thing worthy of note. In the more stubborn cases, when the patient is unable to take scarcely any food, on account of the soreness of the inflamed vesicles, and ulcers, still the secretion of milk continues abundant. The child is generally healthy, and apparently derives sufficient support from its mother, for growth. Indeed, in some persons, we have remarked that where the stomach could not retain its food; the desire for aliment almost destroyed; diarrhœa exceedingly exhaustive; and the patient seemingly not having sufficient strength to raise her head from her pillow; even then the infant did not apparently suffer from the parent's debility. But there are instances where, if this disease is permitted to continue for some weeks, the secretions become morbid, the milk fails, and the child will be materially affected by a too long continuance at the breast. Its digestive organs will be impaired, or some serious difficulty follow.

Causes.—One of the strongest predisposing causes of nursing sore mouth is a naturally delicate and enfeebled constitution, accompanied by laxness of muscular fibre, and a deficiency in the strength and activity of the vital powers. Whatever depressing influence, therefore, that may operate to deprave the system, and weaken its hold on life, will contribute to the existence of this disease. Persons, then, who have often been bled, or confined to low and indigestible diet, or weakened by continued diarrhœa, or some exhaustive sickness, are well fitted to be its subjects. Anxiety, alarm, or any mental disturbance, will sometimes indirectly produce it. Derangement of the alimentary canal may be regarded as an occasional cause, for, we have seen that the complaint is often preceded by such derangement; and in its treatment we shall find that the state of the *primæ viæ* influences to a great degree the course and activity of the irritation in the mouth.

In addition to these, and closely connected therewith, are other indirect or disturbing causes which exert an unhealthy influence over the digestive and assimilative organs. These are a want of sufficient exercise, confinement in close and ill-ventilated houses, some particular kinds of food when the

stomach is in a weakened state. We have met with one patient, where molasses gingerbread would excite all the symptoms of nursing sore mouth. Dr. Watson, in speaking of apthæ, says: "They seem to depend upon the mere derangement of the stomach. A nobleman, who is a *bon vivant*, can never eat shell-fish without finding within two hours afterwards, that his mouth is full of apthæ. Even lobster sauce will serve him thus."

But, as we have before intimated, all the above things being combined, do not affect some individuals, as far the greater proportion of females pass through all the stages of the puerperal state with perfect immunity.

There are other causes about which there is not much dispute that seem to have an agency in generating this malady. In localities where "marsh miasm" prevails, this operates upon the system to invite into activity this sore mouth. For proof of which, we refer to the article of Dr. Shanks, *American Medical Journal*, vol. 4, 1842. The facts related by this gentleman would certainly indicate, that miasma was a powerful predisposing cause, or how can it be explained, that formerly "few women escaped the disease in some degree during lactation," but now, since the country around Memphis has been more exempt from intermittents, "this affection has become more rare, attacking those chiefly unacclimated, of feeble health and of leuco-phlegmatic temperament."

In addition, there are gestation and lactation, which are confessedly causes that have great power over some female constitutions, by their capability of keeping up in the system a state of irritation. Some who regard nursing sore mouth as a peculiar affection, find its principal cause in these two conditions of the system. This hypothesis, for it is nothing more, would really make no difference between health and disease. It would create gestation and lactation at the same time, physiological and pathological conditions. These states of the system may predispose to this affection, but nevertheless, are natural states, and analogous in this respect to diversities of natural constitution and acquired habits of body; and no more than the latter constitute a pathological cause. We are brought to affirm, that a state of health is a state of disease. There is no escaping the paradox except by saying that lactation is a diseased condition. Besides it is well established, that these two combined do not produce this sore mouth in nine-tenths of those females bearing children—a fact which goes to disprove the position taken.

But it is objected to this view of the subject that this malady

is incurable in the hands of some, except by weaning. This objection does not accord with the general experience of physicians, for some have found that it can be cured by the use of proper remedies. And it is well known, that there are quite a large number of cases, that either are curable, or at least, are not of so grave a character as to require the suspension of nursing. It would be indeed susprising, if there were no stubborn instances of this malady, that hold out against every means of treatment; such is the fact with other diseases, and why not with this? But, then, it cannot be said, if it is sometimes obstinate, that the disease is peculiar to lactation, for other ailments are modified by these natural states, or conditions.

But, further, if this is a correct solution of the phenomena of nursing sore mouth, why is it, that it is always seen in every subsequent pregnancy and lactation of the same individual, and never at any other time. Our answer is this: lactation and gestation serve as exciting causes to bring the disease into being, just as the "lobster sauce" in the nobleman, spoken of by Dr. Watson, did in producing apthæ. The same principle is involved and the same explanation can be given to both.

Some, in searching for the nature of nursing sore mouth have supposed it was in some way related to anæmia. Now that these two diseases are really different, can, we think, be sufficiently demonstrated. The one may run into the other, but they depend for their existence upon different causes. There is no doubt, but that anæmic persons may be more liable to this sore mouth, than persons perfectly healthy. They are just as subject to other diseases, as they are to this. But it cannot be said, on this ground, that anæmia is the pathological cause. The fact that this latter complaint occurs as an epidemic, and is known to be long absent from certain localities where it once frequented, while the causes of anæmia remain; and the fact of its non-occurrence at all, in some countries, and not in the practice of physicians, like Dr. Dewees (whose practice cannot be reasonably supposed to have embraced no cases of weak, relaxed, anæmic females), totally disparages the idea of anæmia in any sense constituting the essential, or pathological cause.

Others have thought that this disease was occasioned by a loss of some particular principle of the blood. The small number of females subject to this complaint is scarcely reconcilable with this supposition. Then, we could not exempt from the pernicious influence of such a cause, the vigorous in health and

plethoric; and with still more difficulty can we afford immunity to those strongly disposed from natural delicacy of constitution; and superadded anæmic, exhausted, and debilitated state of the system—many of whom, nevertheless, escape the disease altogether. This could not be possible were the foregoing hypothetical cause the real and essential pathological condition.

A modern theory has been started by Dr. Knapp, denominating this malady "land scurvy." This gentleman grounds his reasons therefor on the treatment generally pursued for its permanent cure. We cannot agree with this hypothesis, because an apthous condition of the mouth cannot be traced to such a source, as is universally admitted to be the cause of scorbutus, viz: a deficiency of vegetable diet, or a surplus of salted provisions. On the other hand, there is not one case in a thousand, where there can be any deficiency among women in this kind of food. We have known females, who are in the daily use of a generous vegetable diet, wanting in no single ingredient to constitute it essentially anti-scorbutic, and yet these very persons were sorely afflicted with ulceration of the mouth during gestation and lactation. In this connection we would remark that "the peculiar affection" of Dr. M. Hall, to which the writer refers in support of his position, no more answers the description of scorbutus, as given by standard authors, than the several kinds of Mimoses of Dr. Hall does to that of nursing sore mouth. It has none of the antecedents of scurvy.

Rejecting, then, these several theories as constituting the real, or essential cause of this affection, we are led to inquire, what is its nature, or what is the disease itself? We answer, that with our present information on this subject, we must pronounce nursing sore mouth and apthæ alike. Upon their physical histories we cannot affirm them different. Their resemblance, both in their rise and progress, would tend to show, with no small degree of probability, their identity. This identity, however, resting upon this theoretical aspect of the case (which seems to us, nevertheless, the just interpretation of all facts known relative to this disease), may be held provisionally, until it be tested by future investigation, as regards the physical distinctions of the disease, by which such distinctions can be established.

We regard this disease as local in its nature, occurring as an epidemic and sporadically, just as all epidemic diseases do. It is a frequent complication of idiopathic fevers and disordered states of the digestive organs. But the reason why vesicles

and ulcers should be first seen in the mouth, or elsewhere, we are unable to explain. The observations of Dr. Hale upon this point are not inappropriate here. He says: "From the great liability of the stomach to be disordered in this complaint, and especially from the fact already mentioned, that those remedies only are of permanent benefit which act upon the stomach, it should seem that it is chiefly through the intervention of that organ that the disease is produced. We know of no direct sympathy between the parts in which this affection first appears and the mammæ; while the stomach is very closely connected with the mouth and fauces on the one hand, and with the uterus and all other organs associated with it on the other."*

Treatment.—We propose to give a synopsis of the treatment generally adopted by writers upon this subject, before we go on to speak of what we deem the best means of medication. It will be seen as we pass, that there is an agreement in many respects in the kinds of medicines used, also in the recommendation advised.

Dr. Hale thinks emetics useful in some cases to produce a powerful general effect upon the system. His chief reliance, however, is upon tonics; those which give vigor to the stomach, such as some of the preparations of bark, quinine, porter and ale. When porter stimulates too much, he gives a fermented solution of tartaric acid and sugar—an agreeable drink, as it contains a large quantity of carbonic acid.

Dr. Backus, after trying various doubtful remedies, has hit upon the following mixture, consisting of carbonate of iron, rhubarb, aloes, ipecac, Sap. Hispan. This is made up into pills; two of which is given twice or three times a day. This gentleman has found this preparation successful, with astringent washes, in many cases.

Dr. Shanks,—"In the most robust, and plethoric, the feverish excitement must be reduced by bleeding," followed by alteratives and laxatives, such as blue moss, calcined magnesia, and rhubarb in small doses. In those of more feeble health, when there is but little feverish excitement, he prescribes as a tonic and laxative, a combination of blue mass, ipecac, carb. ferri., and aloes, in proportion to suit the case under treatment. Dr. Christian, one of the oldest physicians of Memphis, Tennessee, places his trust in small doses of ipecac alone.

Dr. Taylor does not depend upon the "partial success of

* It will not be expected that the writer should here go into the nature of common apthæ, for this has been done in extended treatises, although there is much more of theory than fact in many of the writings upon this class of diseases.

tonics," but has given, with benefit, broken doses of sulphur and cream of tartar, as the only internal treatment. In patients exhausted by the effects of the disease, he thinks these should be carefully prescribed, perhaps only for costiveness; and, in addition, he advises tonics, such as cinchona, elixir vitriol, porter, etc.

Dr. Ely prescribes an alterative course, and uses both for a wash for the mouth, and internally "ido-hydrargyrate of potash." His confidence in the efficacy of this medicine increases with its use. We have met with other physicians who praised its virtues.

Dr. Brainard treats his patients with a general course of tonics, nourishing and abundant food; good beer, ale or porter; iron, and vegetable bitters. As a local wash—fuming muriatic acid applied to the ulcerated parts.

Dr. Knapp thinks the disease to be of a scorbutic nature, and addresses for its cure such medicines and such diet as are usually considered anti-scorbutic.

Dr. Judkins, after the administration of bi-carbonate of soda to correct the acid and acrid secretions, gives the the following formula:

"℞ Nitrate of silver, gr. x.
Denarcotized opium, gr. iv.
Gum camphor, gr. v.
Di sul. of quinine, ʒ i.

M. ft. in pill. No. xxx; one to be taken three times a day."

This pill has succeeded well in a large number of cases.

Dr. Hall of Tennessee.—A nutritious diet; exercise adapted to the strength of the patient; and attention to the healthful functions of the skin. Quinine, chalybeates, the mineral acids, and cod liver oil, are chiefly relied on.

Dr. Ellsworth, of Connecticut, gives bark with lime water; carbonate of iron, soda, and particularly porter. "Almost everything tonic is useful.

Dr. Holt thinks hydriodate of potash in five-grain doses, three times a day, as near specific as anything can be.

Dr. J. Y. Ware finds Griffith's myrr. mixture an infallible remedy.

Prof. R. D. Mussey, of Cincinnati, in a letter to us, says: "I have witnessed very satisfactory effects from the internal use of cubebs rubbed up in sugar, and sometimes with carbonate of ammonia mixed with syrup or molasses into a confection. A medical friend here in whom I have confidence, has seen four cases cured under the use of cod liver oil."

Such, in brief, is the method of treatment pointed out by physicians, who have written upon this subject. Our experience has been, that the treatment should be judicious, rational, and founded upon scientific deductions. We can perceive no reason why an exclusive line of practice should be here pursued, while a different policy is carried out in other diseases. It is, then, impossible to lay down prescribed rules or formula for all occasions; and if this could be done, it would subject the science of medicine to no higher authority, than the merest tyro in quackery can boast of his pretended art. Such a course would require that the disease should be always the same; that there be no variance in the manner of attack, and course of the complaint, but such is not its ordinary history. Physicians will acknowledge here as elsewhere, that different constitutions require different medical means to restore to health. Tonics may best serve in one class of subjects, while entirely opposite medicines will better succeed in another instance. No two cases are precisely alike, and therefore, not calling for similar modes of treatment.

The first thing that should be attended to is the state of the stomach. If there be acidity, small doses of magnesia, or bicarbonate of soda, once or twice a day, or sometimes the vegetable or mineral acids will serve to correct this state. If constipation predominates, some mild laxative, such as a moderate purge of calomel and soda; seidlitz powder; castor oil; sulphur, and cream of tartar will avert this difficulty. A gentle evacuation of the bowels is desirable in the earlier stages of this complaint, because it exerts a curative influence over the sensitiveness of the ulcerated surface. A prominent point in the treatment is to keep the bowels, especially in the commencement of the disease, in a soluble condition.

Active and irritating purgatives should never be administered, on account of the liability of the mucous membrane of the intestinal tube to ulceration, and severe diarrhœa.

The bowels being cleared, means should be directed to subdue the feverish excitement, existing in some patients. Generally there is no difficulty in effecting this, unless there be some constitutional irritation occasioned by the existence of some other disease lurking in the system. There are not many cases where venesection would be advantageous; it might be indeed dangerous to practice it; still we have no doubt that it might be tolerably well borne in the more robust and plethoric, and even prove profitable. But as a general rule it is contra-indicated, and will rarely be found useful. It is far better, in uncomplicated cases, to use other medicines which eminently possess the

qualities of lowering the pulse, and allaying inflammation. Sometimes a gentle emetic, especially when the stomach is disordered, will be serviceable. For this, ipecac. is far the best.

After the feverish state of the system has subsided, or even, when there is slight exaltation of the pulse, we have given internally the following mixture. This has been used successfully for the last nine years, both in apthæ, and nursing sore mouth, and with like results. Its virtue, doubtless, lays in its tonic qualities:

℞	Myrr.	℥j.
	Carb. Potass,	gr. xxx.
	Rose water,	ℨ iij.
	Sul. Ferri,	℈iss.
	Spts. Lavender comp.,	ℨ vss.
	Sugar,	ʒ j.

Mix and compound in the same manner as the *mistura ferri composita* of the U. S. Dispensatory.

This combination is similar to Griffith's mixture, containing more of the spirits of lavender, and less of rose water. We have given a tea-spoonful of this three times a day, and at the same time, a wash of sulphate of zinc, six to eight grains to an ounce of water, for the mouth. If the physician is called early in the disease, there is no compound more serviceable.

But we have not been governed by this prescription alone. In the more feeble subjects, other tonics are of importance. "Quinine alone," remarks one writer, "in debilitated constitutions, in which there is a disposition to the disease, or after a severe form of the disease has been cured, and is disposed to return, will exert a great influence." There are instances, after the acme of the inflammation is past, where it seems to stay the progress of the ulceration, and render the mother able to nurse her child. Here, we would remark that almost everything tonic is beneficial. Quassia, iron in some of its preparations, iodide of potassium, arsenic, manganese, etc., have been used with success. When the mouth is largely involved, care should be had that all medicines should be as palatable as possible, free from all irritating properties. It is desirable that they be prepared without the use of alcohol.

As the disease is essentially local in its nature, one would suppose, that local applications would always heal the inflamed ulcers of the mouth; but sometimes the contrary is true. They not unfrequently have but a feeble power over the ulceration. Sometimes they seem to exert a palliative influence, and occa-

sionally produce permanent good. They are usually conjoined with medicines directed to the stomach. Those generally employed are nitrate of silver, sulphate of zinc, tannin, decoction of logwood, etc.

Diarrhœa.—In the treatment of this symptom one should see, that the food is unirritating at the onset. When the evacuations are green, or of a sour smell, magnesia, or a mixture of this with rhubarb, may be administered; or, instead of this, pure castor oil, with some astringent, may be substituted. Prepared chalk; fluid magnesia; some of the vegetable astringents, such as kino, catechu, ratanhy, or tannic acid, can be taken with profit. We have seen the use of creosote, six to ten drops to four ounces of water, check the discharges when everything else failed.

Friction over the abdomen; flannel rollers about the body; rubefacients, especially if there is pain; anodyne enemata; and warm clothing, are highly important adjuvants.

But, as we have before intimated, there are some cases which seemingly reject all treatment. The physician is called too late to stop the progress of ulceration, and the exhaustive diarrhœa, or else there is some other complication, which thwarts all the appliances used to arrest the disease. To continue nursing will keep up a constant irritation in the system. What, then, is to be done? Weaning the child will almost always cure the mother, if seasonably undertaken. But there are instances where resort to this is inconvenient, to say the least. The health of the child may make this objectionable, and the circumstances of the patient may render the employment of a wet nurse impossible. In such instances, we must balance the risk taken, and in a good constitution, nursing may be longer continued. But where there are any indications of exhaustion, or an anæmic state of the system, a regard to the health of the mother should be paramount, and she should give up nursing at all hazards. This is not unfrequently the important point of the treatment in grave cases to determine when weaning should be insisted on.

"The circumstances which require that nursing should be suspended, are not merely the degree of soreness of the mouth," for this alone will not always call for weaning. When there is a violent diarrhœa, copious and light colored; phosphatic urine; great emaciation; nervous irritation; paleness of the lips and face; palpitation; dyspnœa; loss of appetite; vomiting; throbbing in the head; transparency of the ears and fingers; the patient is in danger of anæmia, and the child

should be weaned. Even then, it will be difficult sometimes to save life.

In a majority of cases, however, there is no such danger, and, although weaning is advisable when circumstances admit it, it is not indispensable, and women worry through after much exhaustion and suffering, and after all is over, their health does not seem to be permanently injured thereby. As a general rule, nursing should never be persisted in, when remedies are inefficacious to stop the course of the disease. The length of time which one must wait to test the inefficiency of remedies must of course vary according to the urgency of the symptoms.

Diet.—Attention to the diet is indispensable. When the condition of the patient will permit, it should be mild, generous, and of easy digestion; such as a good supply of fresh, tender animal food; milk; milk-porridge; rice; eggs, and good vegetables. Ale and porter will assist digestion, and their use cannot be well dispensed with. Sometimes broths and soups do not disturb the healthy operations of the stomach. Food of an indigestible nature should be prescribed, as it will produce only evil.

During the existence of this complaint every effort should be unceasingly made to prevent the mind from reacting injuriously on the disease. Hence the importance of regular exercise in open air; relaxation from care; and agreeable mental occupation. The patient should have all the amusement her strength will permit; for nothing in our experience is better calculated to restore the exhausted energies of nature and carry on the individual to her wonted health.

Hygienic Measures.—There is much that can be done to prevent the recurrence of this apthous condition of the mouth. Females, from a false modesty, are too apt to shut themselves up secluded from the world during the last stages of pregnancy. The consequence is, the evils of dyspepsia come upon them, the system is led into a state of irritation, and they are soon fitted for the development of disease. Avoid, then, by all means, such things. Exercise frequently in open air. Keep the bowels in a soluble condition. Let the food be simple and nutritious. Employ the mind upon objects that will interest, rather than upon the annoyances of gestation, and in fine, let there be a free use of everything which can amuse and make the patient cheerful.

To recapitulate: from the discussion of this subject we arrive at the following conclusions:

1st. Nursing sore mouth is not a *nova pestis.*

2d. It is not indigenous to this country.

3d. It is often of an epidemic character, and, therefore, governed by the same laws as govern other epidemical diseases.

4th. It is not anæmia, nor is it occasioned by the loss of a particular principle of the blood; nor can it be scorbutus; but most probably the disease in question is apthæ of a severe and obstinate form.

BOOK AND PAMPHLET NOTICES.

I. Manual of Botany. A complete Flora of the Northern States east of the Mississippi, including Virginia and Kentucky. By Asa Gray, Professor of Natural History in Harvard University. With six plates, illustrating the genera of Ferns, etc. P. 606. Published by S. C. Griggs & Co. Chicago, 1859.

II. First Lessons in Botany and Vegetable Physiology. Illustrated by over 360 wood engravings, from original drawings, by Isaac Sprague. By Asa Gray. Chicago, 1859. P. 236. (School and College editions).

These two works constitute but one series; the latter being introductory to the former. They are intended to enable the student, with the aid of a suitable instructor, to acquire a thorough practical knowledge of the science of botany, and to furnish him with such elementary notions of the structure and physiology of plants, as will enable him to understand the uses of their different parts.

From the examination which we have been able to give them, they seem entirely to answer the end for which they are prepared. The "Lessons" are clear, systematic, and illustrated in such a manner, as to be readily comprehended by the youngest beginner in botany. The manual is full, without redundancy, and seems quite complete. It is arranged according to the "natural system" of De Condolle, and has an "Analytical Key to the natural orders, by which the student may refer each plant to its proper family without difficulty."

Prof. Gray's works on botany are standards in many of the higher schools and colleges, and, if any further guarantee of

their value be needed, the names of Professors Torrey, Hitchcock, Silliman, Agassiz, and others, furnish all that can be required under this head.

Those who may desire works on this science, whether for schools or private use, cannot do better than to adopt them.

We wish, however, to seize the occasion presented by the notice of these books, and the opening of spring, to say a few words on the value of the study of the vegetable kingdom to all educated persons, as well as to physicians. In a strictly medical point of view, we should have little to say under this head. We have no expectation that any new plant will be discovered, or a new principle in an old one, which will supersede opium, bark, camphor, etc., although it is likely many useful trees are as yet but little known. Neither are we of the belief that the medicinal action of a vegetable substance is better understood, from knowing to what particular genus and species the plant from which it is derived belongs. Having ourselves collected many plants in our student days, and taken doses of nearly all of them, to observe their effects, we may claim to speak from some experience, on that head.

But, in a physiological, hygienic, and æsthetic point of view, there is scarcely a study more useful than that of the vegetable world; none more pleasing.

1. Physiology.—The cryptogamia are found in such close connection with the infusoria, that it is evident the development of both is favored by the same circumstances. The analogy of the leaves of plants to the lungs of animals is familiar. The following remarks on the movements of plants will be read with interest:

"The stamens of the Barberry, when touched at the base on the inner side, as by an insect seeking for honey, or by the point of a pin, make a sudden jerk forward, and in the process throw some pollen upon the stigma, which stands a little above their reach. In many blossoms the stamens just at the proper season slowly approach the stigma, and after shedding their pollen, recede, or wither away. In such cases, we plainly perceive that a useful end is subserved. But, what shall we say of the Venus' Fly-trap of North Carolina, growing where it is

always sure of all the food a plant can need, yet provided with an apparatus for catching insects, and for no other special use that we know of, and actually capturing these expertly by a sudden motion, in the manner already described." By what mechanism is motion effected in organized tissue, where there is no muscular fibre ?

We know not, and this is but one instance of numerous inexplicable phenomena connected with the simplest forms of life.

2. As the vegetable furnishes the material by which the animal kingdom is fed, the preservation, increase, and cultivation of plants becomes an object of the first importance.

Commerce, industry, and the useful arts are promoted by every advance in our knowledge of the laws of vegetation.

3. It is the province of vegetation to purify the atmosphere and water by absorbing carbonic acid and other products of animal life, and by giving out oxygen, so that, however prolific the animal creation might be, the vegetable keeps pace with it.

4. Such being the natural relations of animal to vegetable life, it follows that the study of plants is naturally adapted to the faculties and wants of man. The curiosity of the child is drawn toward the various forms of trees, leaves, and flowers, and nothing tends more to give a healthful direction to the thoughts than the encouragement of this interest, by pointing out such facts as are most easily understood, and giving such explanations of familiar things as are suited to the capacity of children. Flowers and plants should be among the attractions of every home, as they tend to keep children from those vagrant habits and unsafe associations from which it is so difficult to preserve them. To love flowers is better than to be precocious, sometimes even better than to be the smartest child in the school. To the grown man, this taste is often a resource against care, anxiety, disappointment, and misfortune; giving a charm, always fresh to the face of nature. To the old it is a precious resource, and a means of retiring gracefully from those pursuits no longer congenial to the latter stage of life. The love and study of plants is to be classed among the hygienic influences of the soul.

Florists and botanists are not often found among the insane; they are charming companions, and safe friends, like the flowers and trees themselves.

There is, in truth, a much more strict alliance between man and trees than the thoughtless might suppose. Fancy, for a moment, the earth without vegetation, and you will feel how much of society there is in the presence of forests. Man at first was at war with all other animals and with his fellows, but found food, shelter and clothing in the vegetable world. Trees, like men, have characters peculiar to each; some are bountiful, and give fruit, useless to themselves, and destined manifestly for the wants of man; others are ornamental, formed to delight the eye. Some are solemn, like the pines which crown the mountain side, lifting their tall heads, and raising their arms to heaven, as in perpetual invocation, while years, generations and centuries pass by.

Some are medicinal, and yield opium and quinine, precious gifts to man. Some are poisonous, and destructive to animals, and to other plants. Emblems of strength, of courage, of glory, of pity, of joy, and of mourning; the oak, the pine, the laurel, the orange, the willow, and the yew, are associated with all the events of man's life, from birth to burial. "Woodman, spare that tree," appeals to the heart and instinctive feelings of man; hence its universal popularity. Nothing fictitious or artificial could ever be so generally felt and understood.

Poets, writers of every class, have always been fond of introducing allusions to flowers into their works. Few of them have done so successfully. Shakspeare and Shelley only knew the use of flowers. Chateaubriand, in his stately prose poetry, speaks of them in words not unfit to be remembered:

"The flower giveth the honey; she is the daughter of the morning, the charm of the spring time, the source of perfumes, the ornament of virgins, the love of poets. She passeth quickly, like the life of man, but sheds her leaves gently upon the earth. Among the ancients, flowers crowned the cup of the banquet, and the white hairs of the sage; the early Christians covered with flowers their altars in the catacombs, and the martyrs of their faith; and even now, in memory of these

antique days, we place flowers in our temples."—*Genie du Christianism.*

Finally, the study of flowers is a "medicine for the mind diseased." Men in modern society do not die of old age, nor of disease. Before the fatal attack, anxiety, ambition, disappointment, remorse, and loss of hope, have poisoned the springs of life. It is a consumption of the soul, not of the body; and the good physician, instead of dosing the unfortunate with drugs, should point out to him, and lead him to the contemplation of those natural objects, whose study pleases without agitating, and satisfies without exhausting.

There may be regained, if not too late, that quiet and health, which the too eager pursuit of wealth and station tends to impair and destroy.

Let the young physician, by all means, study the habits and physiology of plants, if he does not become a botanist.

III. Ventilation in American Dwellings. With a series of diagrams, presenting examples in different classes of habitations. By David Boswell Reid, M.D., F.R.S.E., etc. To which is added, an Outline of the Progress of Improvement in Ventilation. By Elisha Harris, M.D., late Physician in chief to the N. Y. Quarantine Hospitals, etc. New York: Wiley & Halsted, 1858. P. 124. From S. C. Griggs & Co., 39 and 41 Lake street, Chicago.

This work is not, strictly speaking, a professional one, and yet a knowledge of the principles and facts which it contains is essential to the physician, as to every one who builds or occupies a house. If you wish to know what is the best way of warming a house, consistent with comfort, health and economy, this is the work to read, or to present to your architect, before he draws your plans.

Selections from Favorite Prescriptions of American Practitioners. By Horace Green, M.D.

This is a small volume of about 200 pages, made up from selections of favorite prescriptions, which Dr. Green has collected from American physicians.

These formulæ are arranged under the proper heads, and many, no doubt, are useful, and capable of fulfilling the indication for which they are intended.

We would caution the young practitioner, however, from using any particular formulæ, for a certain disease, simply because the diagnosis has been made out, and a certain one recommended.

From S. C. Griggs & Co., 39 and 41 Lake street.

FIVE ESSAYS. By JOHN KEARSLEY MITCHELL, M.D., etc. Edited by S. Weir Mitchell, M.D., etc.

The subjects of the different lectures are as follows:

I. Essay on the Cryptogamous Origin of Malasions and Epidemic Fevers.

II. An essay on Animal Magnetism, or Vital Induction.

III. On the Penetsativeness of Fluids.

IV. On the Penetsativeness of Gases.

V. On a new practice in acute and Chronic Rheumatism.

The publication of this volume at this time seems to be rather a mark of respect of a son to a father, than of containing anything new or interesting in medical science, and, therefore, is not a fit work for criticism. The theories advocated in some of the lectures have been set aside by the advance of science, while that of others has been confirmed.

The latter is especially true in regard to the passage of gases and fluids through animal membranes.

To the many friends and former pupils of Professor Mitchell this volume will be eagerly sought after, at least as a memento of their former teacher and friend.

To be had at S. C. Griggs & Co., 39 and 41 Lake street, Chicago.

EDITORIAL.

TO OUR PATRONS.

Our thanks are due to those subscribers, who have so promptly complied with our request to forward the amount of their subscriptions. Their promptness confirms us in the belief that this journal will receive a generous support. To those still in arrears, we respectfully renew the request already made, to forward the amount due.

We have received a number of letters, complaining that money formerly sent has not been credited. We have no other guide, except the books as they were delivered to us, but all moneys sent will be credited as soon as the fact is known to us.

Any persons who have forwarded money by mail, and who are not credited, are respectfully requested to give us early notice.

CONVENTION OF MEDICAL TEACHERS.

This body assembled, in pursuance to a call, met at Louisville on Monday, May 1. We subjoin an abstract of its proceedings.

About twenty-one medical colleges, less than one-half probably, were represented.

Among those not represented may be noted the medical department of Yale College, all the schools of New York, Philadelphia, New Orleans, and the University of Nashville.

These, the largest institutions of the country, did not wish evidently to recognize any authority of the Convention, which sending a delegation might be construed as doing. Others, opposed to recognizing any action as binding, thought it still best to be represented. Among these was Rush Medical College.

The schools which expected to make capital out of the action of the Convention were fully represented. The report shows but imperfectly the spirit of the proceedings. It may be said, without danger of going too far, that a large part of the schools represented evinced a determination not to permit so change-

able a body as the National Association to *prescribe* and *enforce* the terms on which they shall confer degrees. All not represented may be considered as either protesting against such an assumption, or as regarding the attempt as not of sufficient importance to deserve notice.

This abstract is unavoidably deferred to the next number.

In reply to some questions by the editor of the *Ohio Medical Journal*, we beg to state that, in the notice of M. Flouren's book, we only gave the conclusions of the author, without intending to support or dissent from them. The book in itself, and on account of its authority, seemed of sufficient importance in a physiological point of view, to justify a notice.

MISCELLANEOUS MEDICAL INTELLIGENCE.

SURGICAL MATTERS—OVARIOTOMY.

Prof. Pope, of St. Louis, has recently reported four cases of ovariotomy, 2 fatal and 2 recovered.

Prof. Hamilton, of Columbus, reports 2 cases; 1 successful, 1 fatal.

Prof. H. states, that of 24 cases which have come to his knowledge, of operations performed in Ohio, 13 were fatal and 11 successful.

Dr. W. L. Atlee, in 1851, reported to the American Medical Association a synopsis of 222 cases of ovariotomy. Of these,

	Recoveries.	Deaths.
52 were of the minor section,	39	13
153 " " major "	95	58
17 Unknown,	12	5
	146	76

Of the 222 cases, 57 could not be finished—of these, 45 recovered, 12 died.

The Academy of Medicine, in Paris, discussed the subject of ovarian cysts in 1856 and 1857. They were almost unanimous against ovariotomy, Cazeau alone being in favor of it.

They were equally unanimous in favor of injections of iodine, although admitting that it could only be successful in the unilocular form.

Prof. Miller, of Louisville, recently published an excellent article in the *American Journal*, which seems to be intended as a reply to the attack made in the Academy on the operation. The views of Prof. Miller are eminently just. He has himself performed the operation twice, with success. Still there are three things to be said in palliation of the extreme view taken by the Academy:

1. The operation has been abused: a number of cases having been operated, where it was easy to have determined that no tumor existed.

2. The constitution of the French and other women on the Continent are not as robust as that of the women of this country. This is owing, in part, to the nourishment of the laboring classes there being insufficient, and in part to a cause little suspected, viz: that animal life is less vigorous there than here. We have noticed this in regard to frogs, pigeons, rabbits, etc., which we have used for experiments in both places, and Dr. Brown-Sequard confirms this view.

3. Since the mania for ovariotomy has become so pressing, the palliative means, and particularly the injections of iodine, have been entirely neglected. This is an error. In cases of single cyst it is a safe and efficient remedy.

Prof. Miller attributes the performance of this operation to Dr. Ephraim McDonnell, of Ky., in Dec., 1809. This, if correct, is a national honor which ought not to be forgotten.

MEETING OF THE DE WITT COUNTY MEDICAL SOCIETY.

The Society met in annual session at the office of Dr. Goodbrake, in Clinton, on Monday, the 4th day of April, 1859, at 10 o'clock A. M. Present, Drs. John Wright, T. K. Edmiston, John McHugh, W. W. Adams, B. S. Lewis, John Tyler, Z. H. Madden, C. Goodbrake, H. Noble; also, Dr. R. G. McLaughlin, of Heyworth. Dr. Wright, President, in the chair. The Sec-

retary being absent, Dr. Goodbrake was appointed Secretary pro tem.

The minutes of the last meeting were read and approved.

On motion of Dr. Goodbrake, Dr. R. G. McLaughlin was elected an Honorary Member of this Society. The Doctor thanked the Society in a very handsome manner for the honor conferred.

The following gentlemen were elected officers of the Society for the ensuing year:

President, . . . Dr. B. Lewis,
Vice-President, . . Dr. D. K. Edmiston.
Treasurer, . . . Dr. John H. Tyler.
Secretary, . . . Dr. John McHugh.

Censors, Drs. C. Goodbrake, John Wright, and Mr. W. Adams.

Drs. John McHugh and J. H. Tyler were elected delegates to the American Medical Association.

Drs. John Wright, C. Goodbrake, W. W. Adams and J. K. Edmiston were elected delegates to the Illinois State Medical Society.

Dr. Wright, the retiring President, delivered a very excellent valedictory address, on the subject of tobacco; which was well received, and the subject discussed by most of the members present; and the Secretary ordered to furnish a copy of said address to the *Chicago Medical Journal*, for publication.

John A. Edmiston, medical student, read an essay on the action of medicines, which was ordered on file.

On motion, the Secretary was ordered to furnish a copy of the proceedings of this meeting to the editors of the *Chicago Medical Journal*, with the request to publish the same.

On motion, the Society adjourned, to meet in quarterly session, at Waynesville, on the first Monday in July next, at ten o'clock A.M.

JOHN McHUGH, M.D., *Secretary*.

MEDICAL CONVENTION FOR REVISING THE PHARMACOPÆIA OF THE UNITED STATES.

The Medical Convention for revising the Pharmacopœia, which met at Washington in May, 1850, provided for assem-

bling a Convention for the purpose, in the year 1860, by the following resolutions:

"1. The President of the Convention shall, on the first day of May, 1859, issue a notice, requesting the several incorporated State Medical Societies, the incorporated State Medical Colleges, the incorporated Colleges of Physicians and Surgeons, and the incorporated Colleges of Pharmacy, throughout the United States, to elect a number of delegates, not exceeding three, to attend a general Convention, to be held at Washington on the first Wednesday in May, 1860.

"2. The several incorporated bodies, thus addressed, shall also be requested by the President to submit the Pharmacopœia to a careful revision, and to transmit the result of their labors, through their delegates, or through any other channel, to the next Convention.

"3. The several medical and pharmaceutical bodies shall be further requested to transmit to the President of the Convention, the names and residences of their respective delegates, as soon as they shall have been appointed, a list of whom shall be published, under his authority, for the information of the medical public, in the newspapers and medical journals, in the month of March, 1860."

In accordance with the above resolutions, the undersigned hereby requests the several bodies mentioned to appoint delegates, not exceeding three in number, to represent them in a Convention, for revising the Pharmacopœia of the United States, to meet at Washington on the first Wednesday in May, 1860; and would also call the attention of these bodies to the second and third resolutions, and request compliance with the suggestions therein contained.

GEO. B. WOOD,
President of the Convention of 1850.

PHILADELPHIA, May 1st, 1859.

THE CHICAGO

MEDICAL JOURNAL.

VOL. II. JUNE, 1859. No. 6.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

THE CAUSES WHICH AFFECT THE SANITARY CONDITION OF CHICAGO.

By DeLaskie Miller, M. D., President of the Chicago Academy of Medical Sciences.

AN INAUGURAL ADDRESS, ON ASSUMING THE CHAIR.

Gentlemen:—At this, the first regular meeting of the Chicago Academy of Medical Sciences, some remarks upon the objects and benefits of our organization might be considered appropriate. But the objects aimed at in organizing this Society must, I am sure, be fully comprehended, at least by the members. We seek *practical* results. To reach these, the Academy has been divided into different sections, appropriate to the investigation of the different departments of medical science. One of these, "On Public Health, etc.," to which I, with others, have been assigned, has suggested to me, as a suitable subject for this evening, *The Causes which Affect the Sanitary Condition of Chicago.*

This subject, as I think, comes legitimately before us for consideration.

The preservation of health, and the attainment of longevity, are objects of desire to all. And the physician can act most efficiently in promoting these objects, when the causes are fully understood, which would destroy the one or abbreviate the other.

Although much has been written upon the sanitary condition of this city, still, I have not, as yet, seen all the circumstances stated, which bear directly upon the subject, or their influence properly estimated. Partial views must ever lead to erroneous conclusions. And thus we can readily understand why such a diversity of opinion prevails in the public mind, especially abroad, upon the sanitary condition of Chicago.

I might here refer to the official reports of our city mortality for a series of years, and thus easily settle the question of its insalubrity or healthfulness, relatively, as compared with other cities; but this is not now my object.

My business now is, to enumerate the circumstances, and describe the mode in which these circumstances affect the health of this city. If there are causes which exist within our limits, or around us, which render this locality insalubrious, it is important that they be made public, that their evil consequences may be obviated.

The topography of the city, then, in the first place, claims our attention. The site of this city is such as to impress the minds of those unacquainted with the surrounding circumstances, most unfavorably. It is, to appearance, a level plain, elevated only a few feet above the surface of Lake Michigan, which bounds it on the east. The soil is porous, composed of a light sand and alluvium, which rests on an impervious clay bed.

This character of the soil favors the rapid absorption of the water which is deposited upon its surface, but which is held near the surface by its inability to penetrate the bed which immediately underlies. And although the water may rapidly disappear from sight, it is nevertheless held ever ready to be elevated into the atmosphere again, by any circumstance which favors evaporation, bringing up with it the malaria and deleterious gases generated by animal and vegetable decomposition, which is continually taking place in a city large as this.

An atmosphere highly charged with aqueous vapors, is the efficient vehicle for transporting miasmata. Here is a potent cause of disease, which would produce its injurious effects in various ways. 1st. The atmosphere, which, during the warm season, would be charged with aqueous vapors nearly to satura-

tion, would, by constantly acting upon the system, produce derangement and debility, by interfering with the chemical changes which should take place in the blood by respiration, and which is manifested by indisposition to engage in either physical or mental labor. Also, in this condition, the system is less able to resist the general causes of disease. 2d. To this must be added the effects produced by the poisonous materials, introduced directly into the blood through the lungs in respiration, which derange the blood, and, through it, produce disease in the solids of the body.

I have thus spoken of the causes connected with the *natural site* of the city, which tend to generate disease and would favor its extension. They are such as impress themselves most readily upon the mind, and, doubtless, have had a great influence in coloring the opinion so frequently expressed, of the insalubrity of this city, if, indeed, they have not been the only views taken of the subject. But, when we extend our observation further, we shall find that there are counteracting circumstances, which greatly modify the views taken above, and go far to neutralize the effects of these general causes of disease. I will enumerate some of them. But, first, I must be allowed to say, that, were the city immediately surrounded by lofty forests, or high mountain ranges, which would prevent the free movement of the atmosphere, and which would allow the air, charged with the poisonous exhalations, to rest on the city, and to be inhaled by its inhabitants, the consequences would not vary from the effects enumerated above.

But, fortunately for the city, this is not the case. Its location is most favorable, having on the east and north-east Lake Michigan, including an area of about 13,500 square miles of nearly chemically pure water, permitting no unhealthy exhalations from its surface, and allowing the freest movements of the purest winds over the city, and through the straight, broad streets, which come daily, charged with elements to invigorate the body, and to displace the unwholesome atmosphere generated within our limits. Or, do the winds rush in from the opposite direction, they also come to us equally pure, having traversed a level or slightly undulating prairie, which extends beyond us to

an almost unlimited extent, unbroken by pools of stagnant water, or miasmatic marshes, but "with verdure clad."

From these causes, instead of being condemned to breathe the pestilential vapors, which are always generated in a large city, and are fruitful sources of disease, we here, from our natural position, may inhale the pure breezes of nature without stint. This is a condition most essential to health and longevity; for, without it, all other advantages are valueless.

Thus has nature herself removed from us, more effectually than man could do, the disadvantages which might, at first sight, appear insuperable.

This great natural advantage of our location as a city, cannot be too highly estimated. If we inquire into the causes which render any locality insalubrious, we will always find pre-eminent among them, a deficient supply of pure air, or circumstances preventing the free movements of the atmosphere, so as to displace rapidly the impure, by air of a better quality.

We live on air, and would we live well, this should be pure in quality, and unlimited in quantity.

Next in importance to pure air, is an abundant supply of good water. Of the great value of water, in a hygienic point of view, I surely need not stop here to speak. The supply of water has, for centuries, been the great desideratum in large towns, which, many times, it has been impossible to obtain. In many places, the inhabitants are compelled to depend upon the water afforded by wells. Water obtained in this way, in large cities, can never be wholesome, no matter how much the natural circumstances of location, or geological formations, may favor it. These wells usually occupy the lots on which the residences and outhouses are erected, and the quality of the water, of necessity, must be greatly influenced by the gases from sewers, privies, cesspools, etc., which find their way through the soil to it. Add to this the lime, and various saline and mineral substances frequently met with, and we have a combination of causes not calculated to render the water innocuous. But here, again, Chicago owes much to her natural position, on the shore of Lake Michigan, which affords us an abundant supply of water, and of an excellent quality; notwithstanding, at times, by the action

of the waves, it is delivered to us holding the minutest particles of clay in suspension, rendering it milky in appearance, and unpleasant to the eye. But this does not render it as obnoxious, either to the smell or taste, as has ofttimes been represented. I apprehend that the greatest objection to it, is, in reality, its appearance, contrasted with its usual crystalline transparency; for, I am not aware, that the amount of clay which it contains, at the most unfavorable periods, is so very deleterious to the system, as is by many imagined; besides, these periods are usually of short duration, and the foreign matter can, even then, with the greatest facility, be perfectly separated, by filtering.

Another circumstance worthy of notice is, that the water for the city is taken from the lake nearly a mile north of the mouth of the river.

On the western shore of the lake, a current constantly flows from north to south, as is evidenced by deposits on the north side of piers, when extended into the lake. This, of course, prevents the impure water of the river from being taken up and distributed for the use of the city.

The water taken from the lake is now distributed over a large part of the city; so that here the poor even, may enjoy the luxury of a plentiful supply of excellent water—denied to the wealthy in many places.

I wish now to direct your attention to another question, rather suggestively than as giving any elaborated views of my own. It is this: What effect has Chicago River upon the health of the city? It passes, as you know, through the main part of the city, for about three-fourths of a mile, then branches extend to the extreme southern and north-western limits, having usually but little current, and receiving the decomposing filth that always collects in considerable quantities along its shores; besides, the sewers are so constructed as to lead into it from the different sections of the city. In this way a large amount of material, calculated to produce unfavorable results, is constantly carried into its waters.

Does the river, under these circumstances, produce an unfavorable effect upon the public health? As I before stated, I have not the data to enable me to give a decided opinion. It

would not, however, be difficult to determine the question accurately; for, we frequently have strong winds, which prevail for several days successively, in the same direction, and would enable us to note the effects upon the different sides of the river. This, repeated a number of times in different seasons of the year, would enable us to arrive at satisfactory conclusions. The subject, I think, is worthy the attention of the members of the profession, and, if it should be found to be manifestly productive of disease in its immediate vicinity, then, suggestions regarding the remedy could come from no more proper source than this Academy.

In the early part of this paper, while speaking of the site of the city, I enumerated the circumstances which, in themselves, strongly predispose to disease, especially such diseases as have been denominated zymotic. Now, removal beyond the circle of their influence, is sure to give immunity from an attack; and, also, the removal of the cause, or causes, is equally certain to give immunity from the disease. Can this be effected in Chicago? Can we overcome the disadvantages of a low surface and porous soil? I answer, Yes. The present high grade, recently established, which raises the streets from two to eight feet above the natural level, is a most efficient means; then, the character of much of the material used in grading, preparatory to paving, which is a clay and gravel, so mixed as to make a bed well nigh impervious to water, preventing absorption, and which also arrests the ascent of noxious exhalations. Then add to this the benefits of the system of sewerage, also but recently commenced, but which is being carried forward most actively: and we comprise all the conditions necessary to obviate the objections to the natural site of the city.

I cannot refrain here, from referring to the improper construction of the dwellings, especially of the poorer classes, and the excessive crowding of numerous persons into small and illy ventilated apartments, so frequently met with here, and producing here as elsewhere, its baneful effects. Every physician, and none but the physician, who has frequent opportunities to witness this evil, can fully appreciate the disastrous consequences of this total neglect of the simplest principles of ventilation and

want of room. How frequently do we find numbers of persons crowded into a single apartment, which rests directly on the damp surface beneath, without the slightest provision in its construction for ventilation, which serves them for parlor, kitchen and bedroom, outraging every principle of common decency, to say nothing of the laws of health; and in addition, in the cold season especially, every crevice, which might admit a small amount of pure air, is carefully closed; thus completely excluding this, the most essential element of man's existence, except what is accidentally admitted by the door, which is opened for as short a period as possible, to afford ingress or egress to the inmates.

In vain for them has nature kindly supplied an abundance of this vitalizing element for every creature — in vain the gentle breezes, freighted with materials to invigorate the body—to lend brilliancy to the eye—to the cheek the ruddy glow of health—and give to the brain activity and energy, to incite to "deeds of noble daring." They prize not the blessing, but close the door against it.

I have collected a few statistics of the mortality of this city, for several years past, by which we are enabled to judge of the relative mortality as compared with several other cities. By these, we will be enabled to judge whether the surrounding circumstances, favoring a free supply of pure air, an abundance of water, etc., when joined to the benefits to be derived from the grading of the city, paving and complete sewerage, are not to remove the odium of the insalubrity, so long and persistently attached to this city. I give the results only. They are based upon the official census, as far as I could obtain them, and the record of interments, as kept by the City Sexton. They read as follows:

In the year	1846,	there was 1	death	in every	43.33 persons.
	1849,	1	"	"	18.84 "
	1850,	1	"	"	21.45 "

In '49 and '50, the city was visited by the cholera in its severest form, as may be seen by comparing those years with 1846.

But the record of mortality here, for the past four years, gives us the most favorable results:

In 1855 there was 1 death for every 42.4 persons.
1856 " 1 " " 38 "
1857 " 1 " " 55.3 "
1858 " 1 " " 56 "

If you will compare these figures with similar figures of the most favored cities of the country, you will find that Chicago suffers no disparagement by the comparison; and this is Chicago, too, before she has had the benefits of the improvements to which I have alluded — for these have, as yet, been but just commenced.

I have taken the liberty of copying from the 9th vol. of the Transactions of American Medical Association, the following:

In Philadelphia, the proportion of deaths was as follows—

In 1852,	1	in every	40.10
1853,	1	"	43.61
1854,	1	"	38.10
1845,	1	"	47.81
In the city of Boston, for			
1850,	1	in every	37.84
1855,	1	"	39.88

In New Orleans, the average from 1846 to 1854 inclusive, 1 in every 15.7.

In Baltimore, the average of deaths was, from 1836 to 1848 inclusive, 1 in every 42.72.

I will here invite your attention to the impression which so generally prevails in the public mind, in regard to the infant mortality of this city. Should we take our cue from editorials in the city papers, or from the remarks so frequently made by many citizens, we should be led to infer that it was next to impossible for children to survive in Chicago. Doubtless, the infant mortality of Chicago, as in all other large cities, is too great, which seems to be, and truly is, enormous. But does this city suffer, in this respect, by comparison with other cities? It may not be generally known, that, of all the deaths which occur in cities, one-half are among children under five years of age.

But, by referring to the statistics of Philadelphia, New York, Boston, London, and some of the principal cities on the continent, this is found to be the case. I have examined the official reports of mortality for this city, for the years 1855, 1856, 1857, and 1858, and find that the mortality here, among the children under five years of age, is about equal to that of the city of Philadelphia, which is conceded to be one of the most healthful cities in this country. Then, again, it appears to me fair, to refer to another circumstance, which would have an influence upon these figures, in our favor. Our community is composed mostly of young persons, and a larger proportion of them are raising families than in other cities. Then, of course, we should have, relatively, a larger proportion of children, to augment the infant mortality here.

The subject of infant mortality introduces us directly to the consideration of its causes. Of all these, I cannot, of course, speak, in the time to which propriety would limit me. But, one potent cause demands our attention here. *The adulterated milk furnished to cities*, and a large part of it for the sustenance of infants. The infant organization is such, that the slightest cause is liable to destroy its powers of assimilation, and its hold upon life so feeble, that it rapidly sinks, when imperfectly nourished.

Now, the milk, daily furnished to cities, is not only largely diluted, but so greatly adulterated, as to render it unfit for use. In saying this, I am aware that I am but repeating what has been said before. Still, the evil prevails, to an alarming extent; and, it is for this reason, I allude to it now.

We have legal enactments, restraining the sale of unwholesome food, and especially of adulterated milk. Why do not the proper authorities enforce its provisions upon this traffic? This, surely, is of the greatest importance, affecting the happiness of thousands, and striking at the tenderest ties in society; for, its greatest physical evils are visited upon infancy.

This subject may seem trite to the members of this Academy; but, if the above are facts, their destructive consequences are not a whit lessened, because the subject is trite. And, if public excitements are powerless in remedying the evil, because,

like spasmodic efforts, they suddenly relax; or, if legal enactments are ineffectual, because the public do. not realize the enormity of the evil; then, surely, on the members of our profession must rest, to a very great extent, the responsibility; for to them the public prosperity looks, as the conservators of the public health. By our united and personal efforts, in the same direction, we may effect much towards mitigating the evil, if, indeed, we do not entirely remove it.

Gentlemen: I have thus enumerated, in as brief a manner as I could, the causes which affect the sanitary condition of this city. I have not been biased in these remarks, by favor or prejudice, to give undue weight to one, or under-estimate the influence of another class of causes. I have had no theory which would lead my judgment astray, or interest to color my opinions. I have endeavored to follow where facts and unquestioned principles would conduct. To what conclusion, then, have we arrived?—to this: That the location of Chicago, so favorable for commercial and physical prosperity, is equally favorable for the preservation of health and attainment of longevity. That, when the present system of municipal improvements, now being carried forward with commendable energy, should be completed, we may rationally expect that this city will occupy the position, in regard to its sanitary advantages, that it now does in its physical prosperity, and be acknowledged without a parallel.

ARTICLE II.

PREGNANCY AND EXTRA UTERINE CONCEPTION.

BY GEORGE HIGGINS, M.D., OF AURORA, ILLINOIS.

On the 17th of March, 1859, I was called in haste to see Mrs. N. Orr. On my arrival, I found the patient suffering severe pain, just above and at the right of the symphysis pubis, with a sensation of bearing down.

Ascertaining the patient to be pregnant, made a vaginal

examination. Nothing unusual presented; the os uteri firmly closed. Hoping to prevent an abortion, I gave a full dose of morphine, which relieved the pain, and the patient remained comfortable in bed, taking occasionally an opiate, moving the bowels in the meantime with oil.

All went on quietly, until the 19th, when the pain returned, with much more force than before, with a very unpleasant sensation in the lumbar region.

On making another examination, I detected an elastic tumor, high up in the vagina, in front of, and extending to, the uterus, which, at that time, was in the proper position, the pain rapidly increasing in severity.

As before, I gave a full anodyne, to quiet the pains, and waited the final termination, whatever it might be; as I left, telling the family to let me know, if there was any change in the symptoms.

On the 20th, at one o'clock A. M., I was called suddenly, the messenger stating the patient to be much worse. On arriving, I found the statement too correct.

Another examination revealed, to my great annoyance, the same elastic tumor, before mentioned, low down in the pelvis, crowding the uterus backwards and upwards, so that the ostincæ was out of reach. As the pains increased in severity, the tumor became tense, and seemed to occupy the whole cavity of the pelvis. I proposed counsel, as I thought the case would prove fatal. Dr. Howell was called. Soon after the Doctor entered the room, and while I was making an examination, the tumor gave way, followed by a large discharge of water, perhaps two quarts. Immediately after this rupture and discharge, the os was readily reached, and was not dilated in the least; satisfying me still better than before, that thet umor was external to and at the right of the uterus.

At this trying time, profuse hemorrhage set in, and not from the uterus, as might be supposed, but in front and at the right of that organ, from the direction in which the tumor was first discovered.

Dr. Howell satisfied himself that the flowing, which was constant, was not from the cavity of the uterus. After a short

time, to our great relief, the mouth of the womb began to dilate. By means of the finger the dilation was more rapid, and in one hour's time, after the rupture of the tumor, or *sack*, two fœtus at five months were expelled, with the cords detached from the placentas, so that I was unable to remove them, the uterus closing down firmly.

As the patient at this time was very much prostrated, I thought best to preserve what little strength remained, as well as I could; so I gave a brandy sling, and a full dose of morphine, repeating the dose once in twenty minutes, until the pain was relieved, and reaction had taken place. Securing, by bandage and compression, a permanent contraction of the uterus, to prevent any hemorrhage that might occur from that direction, in one hour's time the patient was resting quietly. I left, to return again in two hours, ordering the nurse to let me know immediately, if any unfavorable symptoms should set in.

On my return, the nurse said the placenta had been expelled. As the patient remained quiet, I entertained a belief, or, rather, a hope, of there being but the one placenta; but, about two hours after, the husband came to me, saying, the pains had returned with great force. Sure enough, they had, and expelled the other placenta into the vagina. I removed it, and repeated the anodyne to control the pain; for, by this time, the patient was sighing, and almost gasping for breath. Pulse, one hundred and fifty per minute, and quite feeble.

By trifling manipulation, I succeeded in removing the tumor with membranes attached. Appeared much like a placenta, and weighing eight ounces; fetid, and somewhat decomposed. I would here state, the patient was as large as at full term, up to the rupture of the tumor. Now, where was the attachment, and what position did the tumor occupy, up to the morning of the 19th?

The previous history of the patient I have just received. In the summer of 1855, she became pregnant with her first child, a light-haired, blue-eyed boy. Since that time, her health has been declining, with soreness in the lower part of the abdomen, at the right of the symphysis pubis. Had noticed, at times, obstruction in the vagina, with extreme tenderness there.

In July last, aborted at three months, followed by a protracted illness of some four or five weeks.

Her last sickness was followed by no materially unfavorable symptoms. Says she feels better than at any time in the last three years. Is of scrofulous diathesis; tall, slender, with light hair and eyes; a native of Massachusetts, and thirty-two years of age.

ARTICLE III.

OPERATION FOR OVARIAN TUMOR, BY PROF. MEEKER, OF LAPORTE, IND.—REMOVAL OF SEQUESTRUM, BY CHARLES BRACKETT, OF ROCHESTER, IND.

A short time since, I read a letter from Prof. D. Meeker, of Laporte, who says he was the surgeon who attended the woman of Tippecanoe, Marshall county, Ind., and that he is perfectly satisfied that her shoulder was fully—perfectly reduced, at the time he undertook the case. In the February number of the *Chicago Medical Journal*, page 89, I reported her case as "dislocation of the humerus, of eleven weeks;" in which I stated that, "at Laporte, when reduction was again undertaken by the good surgeons, assisted by Jarvis' adjuster, this operation also failed. Some seven or eight weeks after which, I saw her, and reduced the shoulder.

In justice to Professor Meeker, I make this statement. The Professor says "that the shoulder was reduced at the time I made the attempt at Laporte. I think that I was not mistaken about it at the time I was assisted by Dr. Bruise."

On page 89 of the February number of the *Journal*, and sixteenth line, it should read, Dr. Southall, of Tippecanoe, Ind., for "Dr. South, all of Tippecanoe, Iowa."

The following case of ovariotomy, by Prof. Meeker, at which I assisted, by his consent, I submit for publication:

Mrs. Fennimore, aged about forty, had, for the past two years, an ovarian tumor. After the tumor had acquired a diameter of about eight inches, she became pregnant. She first consulted me as to the propriety of inducing abortion, as she

had been informed that gestation could not be fully accomplished, except with a fatal result. I assured her that it could; that from the situation of the tumor, the gravid uterus, enlarging, would mould itself into, and produce absorption of, the tumor. With this assurance, she became quieted; went a full term, with a tranquil mind, and was safely delivered of a healthy, full-grown child. At that time the tumor could be distinctly felt; convex on side next the womb, and materially diminished in volume. About September 1st, 1858, on account of retention of urine, from mechanical pressure (the tumor, for a year after her confinement, having grown wonderfully fast), and from other threatening symptoms, she concluded to have it removed by an operation, and chose Prof. Meeker, of Laporte, as her operator. Accordingly, on the 11th of September, I, in company with Mr. Palmer, Dr. Gould, and Dr. R. A. Diier, of Union, Marshall county, and Dr. Wm. Demoss, met Prof. Meeker at the residence of Mr. Fennimore, sixteen miles west of Rochester.

From the size of the tumor, it was necessary to make the abdominal incision from the xiphoid cartilage to the pubis. On turning out the tumor, it was found to be adherent to the greater part of the right side of the uterus, including the fallopian tube to the bladder, and low down the iliac region, closely investing the right primitive iliac artery, and the whole right iliac region posteriorly; covered externally with a close net-work of large veins, or venous sinuses, presenting a mass of such vascularity, as that, probably, almost immediate death would have followed even a small incision into the surface of the tumor.

The Professor then punctured the tumor, where it appeared least vascular, with a trocar. This was followed by a welling out of the blood in a stream the size of the trocar, and could only be restrained by passing a double thread through the peritoneal surface transversely to the puncture, and tying both ways. A second puncture was made over a portion of the tumor apparently filled with yellowish serum. This was followed by a like gush of blood, and but a small quantity of serum. The bleeding was here restrained in like manner, by the needle and ligature. With great difficulty the tumor and intestines were returned into the abdominal cavity, and the wound closed by sutures, adhesive

strips, and bandages. I stayed with the patient most of the time for a couple of days, and, for a week, kept her quiet with morphine as often as necessary, to produce the desired effect. With occasional laxatives, as occasion demanded, she became quite comfortable, and, in fact, had no severe symptoms at any time during the operation, except a good deal of prostration. She improved rapidly for a week. The wound healed; but on the 30th of November following, eleven weeks and three days after the operation, she died. A post-mortem examination, made by Dr. Diier, revealed the fact that the *side of the tumor which had been punctured, was mostly absorbed*, and the remainder was transformed, or degenerated, into a substance resembling adipocire. I have not the notes of the necropsy, which were promised me by the Doctor, so cannot now give a full account of post-mortem appearances.

Should I ever have a case similar, or one where, from extensive adhesion, the tumor could not be removed, I should pass large setons, traversing the tumor in different directions, and would expect, in a patient as tenacious of life as was Mrs. Fennimore, a perfect cure of the disease by suppression or absorption, one, or both. I am led to this conclusion from the effect of the sutures made through a small extent of this tumor, and from the well known good effects of a seton passed through some external tumors, which it is not advisable, or desirable, to remove with the knife.

REMOVAL OF SEQUESTRUM FROM FEMUR.

Wm. Culver, aged about forty, scrofulous diathesis, twenty years lame from an attack of what was called white swelling; since which time, knee joint anchylosed; suppurative discharge from parts above the joint. Now, February 14th, 1859, confined to one fistula on inner aspect of thigh, two and a half inches above knee joint; in which fistula, at the bottom, can be felt with a probe, dead bone, probably a sequestrum. Assisted by Dr. Gould and Jonas Myers, I laid open the integument to the femur by an incision three inches long, following the course of the fistula—then, could feel the loose bone through a small opening, sufficiently large to admit the point of the index finger; sides

of this opening seemed cartilaginous; enlarged the opening till, with my forceps, I drew out a piece of bone three inches in length, with irregularly serrated edges. Venous hemorrhage profuse; wound closed, and healed rapidly, leaving more mobility to the parts than before the operation. From time to time, to this date, May 17th, 1859, after some soreness about the leg, suppuration takes place, and small pieces of carious bone, similar to the edges of the piece removed, of the size of a pin's head, are discharged. These, I think, are only pieces broken off from the main piece, on its removal from its bed in the femur. I think that the leg will, ultimately, become well, as, at the time of the operation, all parts of bone surrounding the sequestrum were covered with healthy periosteum, perfectly sound, as far as I could know.

ARTICLE IV.

SEQUEL AND ULTIMATE RESULT OF A CASE OF RESECTION OF THE KNEE JOINT.

BY DANIEL BRAINARD, M. D, SURGEON OF THE U. S. MARINE HOSPITAL AT CHICAGO, ETC.

In the number of this Journal for July, 1858, I reported a case of resection of the lower end of the femur for scrofulous disease, in a boy ten years old. This operation was performed January 20th, 1858, and the case was reported as successful.

In the discussion to which that case gave rise, in the Society of Surgery of Paris (see report in the May number of this journal), it was objected, that the ultimate result and state of the facts were not, and, at that period, could not, be ascertained. This objection seemed perfectly well founded, and I, therefore, took occasion to re-examine this subject, which was done May 13th, 1859, in presence of Drs. Powell and Durham, and the pupils employed at the Marine Hospital in this city. The result was as follows:

1. The incisions are all perfectly healed, and the knee is free from pain and tenderness.

2. Bony union has perfectly taken place; but this seems to

have been complete only seven or eight months after the operation.

3. The member, measuring from the pelvis to the ankle, is two and a half inches shorter than the other. This is the exact length of the piece removed, so that the member must either have grown as fast as the other for about sixteen months, or the space between the thigh and femur was filled up with bony substance.

4. The boy steps and walks with the member without any pain or difficulty, except what results from the shortness. With a high-heeled shoe, he could walk well.

I do not think it admits of a question, that this member is at the present time, much more useful than any artificial member could be.

ARTICLE V.

THREE CASES OF INVERSIO UTERI SUCCESSFULLY REDUCED.

BY HAZARD A. POTTER, M. D., OF GENEVA, N. Y.

REPORTED BY CHARLES N. HEWITT, M.D.

As the treatment of inversio uteri is now attracting the renewed attention of the medical profession, I am induced to report three cases, which have occurred in the practice of my partner, Dr. H. A. Potter. Two of them were cases of complete inversion, and one a case of partial inversion; all of some months' standing.

The first which I shall describe, occurred in the person of Mrs. S ——, of Chicago, Illinois, after the birth of her first child. The patient, aged 21 years, of sanguine temperament, and good physical development, was confined with her first child on the 9th of last April. The labor was not more severe than first labors usually are, and presented no unnatural features, except the occurrence of a severe pain under the right breast, which continued during the three last hours of labor. The child was born at 7 o'clock P. M., and, five minutes after, her physician removed the placenta; and she did not feel any after-pains.

Upon being made aware that the placenta was removed, the patient asked if all was right, and was informed that she must lie still, and let the doctor put the womb back. An attempt to do so caused excruciating pain; and, after some time, all was declared right, and manipulations discontinued.

She passed a sleepless night, and flowed so much that her bed and clothes were saturated. The flowing continued profusely until the fourth day, when she had a severe sinking spell, which lasted two hours and a half, during which time the flowing nearly ceased. She was confined to the horizontal position till the sixteenth day, when, on an attempt to sit up, the hemorrhage again began, and never entirely ceased until the inversion was reduced. She resumed the horizontal position again, and kept it until the twenty-first day, when she was moved, in a chair, to the piano. While there, the flowing returned, and continued profusely until the twenty-fourth day, when it ended in syncope. She now kept her bed until the forty-seventh day, and did not recover sufficient strength to walk until the sixty-third day. On the thirty-ninth day, her physician made a digital examination, and found the womb completely inverted; and, counsel being called on the following day, his conclusion was confirmed.

[Such is the account we received from the patient.]

The patient was then advised to take tonics, use astringent injections, eat nourishing food, and was informed that, as she gained strength, her womb would assume its natural position. This advice was strictly followed, and, by the sixty-third day, she had gained sufficient strength to sit up, though the flowing continued slightly all the while, and, at times, profusely. On the sixty-fourth day, she took a short ride in an easy carriage, and continued to do so on every pleasant day, until she decided to come to one of the hydropathic institutions of this State, where she underwent the treatment usual at such places, and several ineffectual attempts were made at reduction. After remaining at that institution about three months, and perceiving no beneficial result, she went thence to her father's house and sent for Dr. Potter. Dr. Potter visited her, for the first time, on Thursday, the 14th of last October. He found her sitting up; her face and extremities pale and slightly œdematous; her

pulse quick and feeble. He made a digital examination. She was flowing slightly at the time. The uterus was completely inverted, and atrophied, being a little smaller than the virgin womb. Its form was nearly cylindrical; its tissues firm and resisting. There was considerable œdema of the lining membrane.

He advised an attempt at reduction, while the patient was under the influence of chloroform. To this she consented. Dr. Potter returned home, had an instrument made, and on Saturday following, performed the operation. I gave the patient chloroform, and, when she was fully under its influence, and in a horizontal position, her hips a little elevated, Dr. Potter began the reduction with the hand. Grasping the uterus firmly, he maintained a steady pressure for twenty minutes, and succeeded in returning the neck, and a part of the body, of the organ. At this stage of the operation, although the patient was fully under the influence of chloroform, she evinced the motion and straining that accompany labor pains, and the vagina grasped the hand with sufficient force to render a resort to the instrument necessary. These contractions of the vagina recurred regularly every five minutes, until the operation was complete. Still maintaining the pressure with the hand, Dr. Potter introduced the piston of the instrument, and applied it to the fundus; then the cylinder was moved upon the stem of the piston, until it embraced the womb; and the hand was withdrawn. The pressure being continued with the piston, every advance gained was retained, until reduction was complete, which was effected in one hour and a half after the operation began. The fundus having, by slow advances, returned within the os, it left the head of the piston with a sensible spring, and resumed its natural position.

But little blood was lost, and the patient rallied from the chloroform well, complaining of nothing but a feeling of soreness about the parts. A folded napkin, wet in alcohol and water, equal parts, was applied to the vulva; and, if she complained of pain at bed time, she was ordered tinct. opii. gtts. xxx.

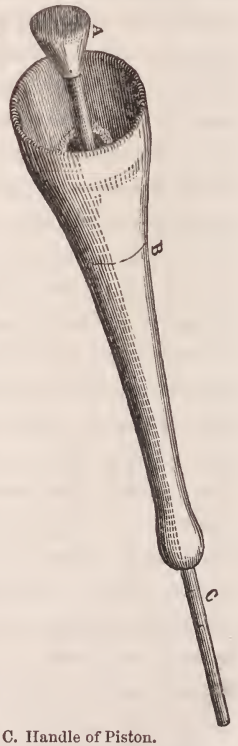
She was visited on the morning of the second day. She had slept well without the anodyne. On the morning of the third day she was again visited—sat up in an easy chair yesterday

afternoon; has walked with ease about the room to-day. There is no pain, and but little tenderness of the parts, and no hemorrhage. She was discharged, and, on the twelfth day after the operation, she took the cars for Chicago.

In calling the attention of the profession to the instrument used in this case, Dr. Potter would not wish to be understood as advising its use in all cases, and under all circumstances in this disease. He believes, as do all who have had experience in the treatment of inversio uteri by reduction, that the hand is the best and safest instrument, when it can be used. This instrument was devised to take its place and perform its duty, and only when the hand could not be employed.

There are cases where the piston alone can be used with great advantage, the hand embracing the womb and directing its movement; and there are other cases where the cylinder will be of great use in place of the hand, as a guide and support to the piston. The entire instrument is made of Turkish boxwood, with the exception of the staff of the piston, which is of hickory.

The head of the piston is of boxwood, and slightly cup-shaped, as far better, for various reasons, than if its upper surface were convex. It is of wood, because, from its slight, adhesive qualities, it is much more readily retained in contact with the fundus of the uterus than either ivory or metal. The cylinder is of wood, because it is lighter, and more readily and cheaply procured than any other substance. The instrument should be boiled in oil before using, to prevent the absorption of blood, or the secretions of the parts to which it is applied. This being an instrument that can be made by any mechanic of ordinary ingenuity, it may be constructed of various sizes to suit individual cases.



C. Handle of Piston.
A. Head of Piston.
B. Cylinder, with broad funnel-shaped concavity to receive the fundus uteri. This resembles in shape a wooden stethoscope.

The other case of complete inversion occurred in 1840. The patient, aged 30 years, was seen by Dr. Potter fifteen months after the inversion, which took place immediately after delivery. For two months, the flowing was profuse, but diminished gradually up to the time of the reduction, when it was scarcely noticeable, except at the menstrual periods. She had leucorrhœa. The uterus was a half-size larger than the healthy unimpregnated womb; sloughy, and yielding to the touch. It was reduced in three quarters of an hour, with the hand alone. The patient suffered greatly during the operation, but made a rapid and complete recovery.

The case of partial inversion occurred in 1836. The patient, aged 35 years, had borne a number of children, and the inversion, when Dr. P. saw her, had existed six months, and she had been treated for polypus uteri. The hemorrhage had not been profuse, but almost constant, and, at the time of the operation, the patient was confined to her bed. Though in the horizontal position, she nearly fainted during the reduction, which was accomplished by the hand in about one half hour. She has borne several children since. The method of practice which insured success in these cases, was, constant, steady, and gradual force applied. The reduction in them all began in the neck, and the fundus was the last portion to pass the os, and passed with the most difficulty.

And we would here inquire, are there any cases of this disease, of however long standing, which may not be reduced by long and continued pressure, excepting only those which are hypertrophied, or in which the peritoneal surfaces are adhered? And, are even these without hope?

TRANSLATIONS FROM FOREIGN JOURNALS.

[From Brown-Sequard's "Journal de la Physiologie."]

TWO MEMOIRS ON THE VARIATIONS OF COLOR OF THE VENOUS BLOOD.

BY PROFESSOR CLAUDE BERNARD.

[Read to the Academy of Sciences, Aug. 9 and Sept. 6, 1858.]

TRANSLATED BY THOMAS BEVAN.

Continued from page 285.

V. It is very easy to demonstrate experimentally that, of the two nerves we have mentioned in the submaxillary gland, the one dilates the vessels, while the other contracts them.

The tympanico-lingual nerve enlarges the capillary vessels of the gland, and this enlargement is such, that when the nervous action is intense, the blood passes from the artery into the vein without losing the cardiac impulsion, and it is seen to flow from the vein of the gland with an intermittent jet, as if flowing from a real artery; afterwards, this venous pulsation disappears, from the moment the action of the tympanico-lingual nerve diminishes or completely ceases.

The sympathetic nerve, on the contrary, contracts and restricts the glandular blood-vessels in the most marked manner. When this nerve is excited, the constricted vessels allow less and less blood to pass. The sanguine fluid retained in the capillary vessels of the gland, flows feebly by the vein, exhibiting a dark color, and darker in proportion as the current is feebler.* When it happens sometimes, that the flow of blood has been suspended by the nervous influence, one sees, when this ceases to act, a quantity of very black blood escape first; afterwards the blood takes its red color, little by little, in proportion as its circulation is accelerated, and the blood, which had been previously retained in the tissue of the gland, is found to be expelled.

In the last analysis, we see that the two nerves, which modify

* When the vein is compressed or obstructed by a clot, this accidental cause also brings about a dark coloration of the blood. It is important to know these circumstances to guard against all the causes of error in the appreciation of the nervous influences.

the color of the blood red and dark, are two motor nerves, which act primitively by constricting or dilating the blood-vessels. The sympathetic nerve is the one which contracts the vessels; the tympanico-lingual the dilatator.*

VI. In the physiological condition of the submaxillary gland, —that is to say, in its normal functional state—we ought to represent to ourselves two orders of nerves as being constantly in activity and antagonism; so that the effective nervous action is always due to the nerve actually preponderating, and that the special influence of one of the two glandular nerves does not seem to manifest itself until it has previously annihilated the action of the other. What proves it is, that each of the nerves becomes more excitable, and reacts with more intensity, under the same excitant, when its antagonist nerve has been previously destroyed. This last phenomenon is very clear, especially for the tympanico-lingual. When this nerve, remaining intact, for example, we cut all the glandular filaments of the sympathetic, and afterwards place a little vinegar on the tongue, we see the ruddy blood flow from the vein with much greater rapidity, and the pulsations become much more energetic than in the normal condition of nervous antagonism,—that it to say, when the sympathetic has not been cut.

This difference in the excitability of the tympanico-lingual nerve is much the more interesting to establish, as it is found here measured by its normal physiological excitant, the gustative impression. All this shows us the existence of a sort of unstable equilibrium in the submaxillary gland, or, of a sort of functional balancing, incessant and determined, by the antagonism of the dilatator nerve and the constrictor of capillary vessels.†

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* This is not the place to seek to give the explanation, which may be given in the present state of the science, of the enlargement of the vessels and the increase of activity of the glandular circulation under the nervous influence. I will limit myself here to the statement of the fact which appears to me important, and of which there is besides the utmost evidence.

† It may be said, as a general proposition, that in the physiological condition, the expulsion of the saliva from the gland corresponds with the activity of the tympanico-lingual nerve, and the repose of the same gland with the activity of the great sympathetic. The excitation of these two orders of nerves may always make the saliva flow; only the excitation of the tympanico-lingual causes a

The extreme dilatation of the capillary system coincides with the direct passage in the vein of the red pulsatile blood. The extreme contraction coincides with a feeble flow of blood, and with a dark color. Between these two extremes we can conceive all the intermediates, and observation may show them to us in experiments.

VII. To recapitulate: after having analyzed successively all the mechanical conditions by which the tympanico-lingual and great sympathetic cause the venous blood of the maxillary gland to appear, alternately, red and black, we have arrived at this conclusion: that these two nerves do not, in reality, act, but as agents of contraction and dilatation of the blood-vessels. This action, which differs in no way from the action of the motor nerves in general upon contractile or muscular elements, brings about, however, its results, by a chain of entirely natural phenomena, a series of physico-chemical modifications in the sanguineous fluid. When the sympathetic nerve constrictor of the vessels acts, the contact between the blood and the elements of the gland is prolonged, the chemical phenomena which result from the organic exchange which passes between the blood and the tissues has had time to operate, and the venous blood flows very dark. When, on the contrary, the tympanico-lingual nerve, which dilates the vessels, acts, the passage of the blood in the gland is rendered very rapid, the modifications of *veinosity*, which pass at the contact of the blood and the tissues, is otherwise accomplished, and the blood escapes from the vein with a ruddy tint, and presenting its aspect of arterial blood.

Thus, we may always seize between the primitive physiological action of the nerve, and the chemical phenomenon which follows, an intermediary, which modifies mechanically the special circulation of the glandular organ.

Lastly: I will add, in conclusion, that, owing to the influence of the two nerves whose physiological action we have indicated, the submaxillary gland is found possessed, in reality, of an individual circulation, which, in its variations, is independent of the

saliva much more fluid, and that of the great sympathetic much more viscid. This phenomenon is particularly observed when all the nerves of the gland being cut, we galvanize the ends which yet hold to the gland.

general circulation; and, what I say here for the submaxillary gland, may, without doubt, be advanced for all the organs in the economy. The pressure of the arterial system and the cardiac impulsions are common mechanical conditions that the general circulation dispenses to all the organs.

But, the special nervous system, which animates each capillary system and each organic tissue, regulates, in each part, the course of the blood in relation with the particular functional chemical states of the organs. These nervous modifications of the capillary circulation occur on the spot, and without any perturbation of the circulation being borne to the neighboring organs, and, for still stronger reason, to the general circulation. Each part is tied to the whole by the common conditions of the general circulation, and, at the same time, by means of the nervous system, each part can have a proper circulation, and individualize itself physiologically.

Such are the special physiological conditions impressed by the nerves on the capillary circulation, and which appeared to me indispensable to make known, before commencing the study of the chemical conditions of the various venous bloods. It remains, at present, to know what are the chemical modifications of the blood, which give birth in the physiological conditions we have indicated, to these alternated red and dark colorations of the glandular venous blood. This will be the subject of the following communication.

II. On the quantity of oxygen which the venous blood of the glandular organs contain, in the states of function and repose, and on the employment of the oxide of carbon to determine the proportion of oxygen in the blood.

In a communication made to the Academy, January 25th,* I demonstrated that, in the normal or physiological† state, the

* See No. II. of this Journal, April, 1858, p. 233.

† In the physiological condition, the excitability of the secretory nerve is always accompanied with acceleration of the circulation and a red coloration of the venous blood. These phenomena are so much the more marked, as the glandular organ is smaller and more independent in the disposition of its vessels of the circulation of the neighboring organs. I do not know any gland where the phenomenon is so visible as in the submaxillary gland of the dog, which fills all these conditions. But, so as not to be misunderstood on the subordination of

venous blood of the glands is red, when these organs expel the product of their secretion, and that it is dark when the organs expel nothing and are inactive.

In another communication (see the above), I have indicated by what physiological mechanism two orders of nerves hold under their influence the variations of color which supervene in the glandular venous blood.*

To-day, I desire to examine the chemical modifications of the blood, which are in relation with its changes of coloration in the same vein.

But I must hasten to say, it is not question here of a chemical analysis of the blood. In this examination of the glandular venous blood, it will only be question of the relative quantity of the oxygen, the gas to which is always attributed the ruddy color of the blood. Besides, I would not have permitted myself this

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these various phenomena, I will remark, that all I have said proves clearly that this coloration of the venous blood is, in consequence of the action of the nerve which accelerates the circulation, and not a cause of secretion; for it occurs after the section of the great sympathetic, without there being any secretion. So that, if one puts an obstacle to the flow of the blood in the glandular vein, and at the same time excites the secretory nerve, the secretion may still occur, although the blood, accidentally retarded in its course, cannot flow red. In certain voluminous glands, as in the parotid of the horse, the whole of the blood is renewed with more difficulty in the gland, on account of its volume, and because of the communication of the glandular veins wiih the neighboring muscular veins, which furnish an excessively dark blood, in the masticatory movements of the animal. Also, it does not appear that in this gland, the phenomenon has been discovered, although it exists, but masked by the circumstances I have indicated. In acting thus the part of cause and effect, we see that the essential physiological action of the secretory nerve is to accelerate the circulation, and render the nervous blood red, when the acceleration is as intense as possible. There is no reason to find contradictions in the less marked effects of the phenomenon which result from circumstances entirely secondary.

* Since then, I have pursued my researches on the nerves which accelerate or retard the capillary circulation, and I have found that these two orders of nerves are not to be met with alone in the glands, but that they exist in other parts of the body. I have established, principally in the dog, that the filaments of the mylo-hyoidien branch of the inferior maxillary nerve of the fifth pair accelerates the circulation in the vessels of the face. I will give, at a future time, these experiments, in occupying myself necessarily with the phenomena of local circulations, which are yet but little understood.

encroachment upon the domain of the chemists, if I were not influenced by entirely physiological conditions, as will be seen in employing a new and very simple means for determining the quantity of oxygen in the blood.

It is now about ten years since I made some experiments on the poisoning of animals by the oxide of carbon, that I have repeated since in my course at the College of France, in 1853 and 1856.* While studying the toxic action of the oxide of carbon on the living animal, I was led to find that this gas rapidly poisoned the animals, because it instantly displaced the oxygen in the blood globules, and could not afterwards be displaced by the oxygen of the air. Whence, it followed, that the blood globules, in some sort paralyzed, were rendered incapable of absorbing the oxygen, and, thereafter, circulated like inert bodies, without the power of supporting life.

If all the blood globules are attacked by a sufficient quantity of the oxide of carbon to displace all their oxygen, death is almost instantaneous, and life cannot be recalled by artificial respiration; if a part of the blood has escaped the deleterious action, death does not follow until later, etc.

In a word, I considered the highly toxic action of the oxide of carbon as a consequence of its very great affinity for the matter of the blood globules. In short, the oxide of carbon has more affinity for the blood globules than the oxygen, seeing the oxide of carbon displaces rapidly the oxygen, while the oxygen is incapable of displacing in its turn the oxide of carbon.

It is this singular property of the oxide of carbon, of which, I believe, I was the first to recognize the action, which conducted me very naturally to employ this gas in displacing the oxygen of the blood. This means offers above the old methods the advantage of being more exact, because, by the same toxic action to which the oxide of carbon subjects the blood, the causes of the disappearance of the oxygen during the operation are removed.

For two years, I have employed this method in a great num-

* Notes of M. Bernard's lectures on the blood, with an appendix by Walter F. Atlee of Philadelphia, 1854; pp. 19 to 22. *Laçons sur les effets des substances toxique et medicamenteuses.*—Paris, 1857.

ber of researches; and, last winter, at the College of France, in my course, the principle subject of which was the study of the blood, I developed publicly the advantages of this means of analysis, basing it on the numerous experiments made by M. Leconte, and which were instituted for determining the relative quantity of oxygen in the blood of the different organs of the body.

Here, in few words, is my mode of operating: I draw out the blood from the vessels by means of a graduated syringe, and pass it rapidly, by the aid of a covered iron canula, into a graduated glass tube placed over mercury, and previously containing the oxide of carbon gas. I thus obtain the blood protected from the contact of air. (*Loc cit*, p. 166). As soon as the blood is introduced, I shake it strongly, so as to effect the mixture, and prevent coagulation. I maintain the contact of the blood, add oxide for an hour or two, at a temperature of 30 to 40 degrees, being careful to agitate the blood during this period at two or three different times. The total volume of the gas does not ordinarily change, because the oxide of carbon displaces the oxygen volume for volume.* Under the influence of the oxide of carbon, one sees all kinds of blood take a persistent vermilion tint, which I signalized long ago, as characterizing the action of the oxide of carbon, as well in the blood-vessels of the living animal as upon blood treated out of the body.

I habitually employ, for each experiment, 25 cubic centimetres of the oxide of carbon for 15 cubic centimetres of blood. With this quantity of gas, all the oxygen of the blood can be displaced, which can be proven by adding a new addition of oxide of carbon, and in this second washing no appreciable quantity of oxygen is found.

To analyze the gaseous mixture in which the displaced oxygen is found, we use the methods habitually employed. The carbonic acid is treated by potassa, the oxygen by pyrogallic acid, and the oxide of carbon, when we have recourse to

* I have already mentioned this displacement volume for volume of the oxygen by the oxide of carbon (course of 1856, page 84); but I have since seen, when there is much carbonic acid, that there was augmentation of the total volume of the gas.

it, is made by its transformation into carbonic acid by the electric spark.

After these preliminaries—a little long, but, as I believe, necessary—I come to the essential object of my communication, which is, to ascertain whether the red glandular venous blood contains as much, or more, oxygen, than the dark glandular venous blood. I have thought it necessary to put the question thus. In fact, in the present state of our knowledge, we cannot make but two hypotheses on the cause of the vermilion coloration of the blood which flows from the gland, when the activity of its functions are such as we have described, animated by pulsations, as the arterial blood, when the secretion is very intense. It might be thought that the red venous blood is simply the arterial, which has traversed the capillaries with so much rapidity that it had not time to become venous—that is to say, to have its oxygen take in its place carbonic acid.

But, it may also be admitted, that the red venous blood is an ordinary venous blood, with this difference, that it does not remain dark, because, being formed at the moment of secretion, it is deprived, by the glandular excretion, of its carbonic acid, which would have rendered it dark; thus it occurs when the gland does not secrete, and the carbonic acid cannot escape.

This last opinion acquires a good degree of probability by the fact that all the liquid secretions contain a considerable proportion of carbonic acid, either in solution or combined. The comparative quantity of oxygen contained in the blood at its entrance into the gland, and its exit from the same organ, not alone capable of deciding the one or other of these two hypotheses, if, at its exit from the gland, the red venous blood contained more oxygen than the dark venous blood, and as much as the arterial, it is clear that it is not venous blood. If, on the contrary, the red venous blood gave less oxygen than the arterial, and in an equal proportion to that contained in the dark, we ought to accept the received opinion, namely: that, during the secretion, the arterial blood became venous, as usual, with this peculiarity —that it remained red; because, it was deprived at the moment of its carbonic acid, instead of later eliminating it through the pulmonary organs.

These, therefore, are the terms of the problem that I propose to solve. Let us see what the experiments really teach us.

I experimented with the blood of the renal vein, because the volume of the organ permits us to obtain with facility sufficient quantities of blood for analysis.

On a vigorous dog, during digestion, after having exposed the renal vessels of the left side with proper precautions, I withdrew rapidly, and brought immediately in contact with 25 cubic *centimetres* of oxide of carbon,* 15 cubic centimetres of blood from the renal vein. During the time, the urine was flowing abundantly from the ureters, and the venous blood was nearly as ruddy as that of the artery. Immediately afterwards, one of the numerous divisions of the renal artery, at its entrance into the kidney, was cut, and, from its central end, I withdrew 15 cubic *centimetres* of blood, which I likewise mixed with a similar quantity of oxide of carbon.

Then, to trouble the urinary secretions, I removed the fatty capsule of the kidney. The urine ceased, after a few instants, to flow by the ureter, and the blood of the vein became as dark as the venous blood of the vena cava.

At this moment, I withdrew 15 cubic *centimetres* of the dark venous blood from the renal vein, which was, like the two others, treated with 25 *centimetres* of the oxide of carbon. After remaining an hour in a bath at a temperature of from 30 to 40 degrees, the analysis of the gas in contact with the three kinds of blood above designated, gave the following results for the quantities of oxygen they contained, calculated in 100 volumes of blood:

	Volumes of Oxygen.
1. For the red venous blood,	17.26.
2. For the arterial blood,	19.46.
3. For the dark venous blood,	6.40.

In a second experiment, there was found 16 for the 100 of

* This rapid withdrawal of the blood from the renal vein is tolerably difficult to accomplish. We must avoid tieing the vein; for, as soon as we do, the blood becomes black from obstacle to the circulation. It is on this account that I prefer to penetrate the vein from the right, and plunge the canula of the syringe into the left renal vein, in which the circulation is not interrupted.

oxygen in the red renal venous blood; 17.44 in the aortic arterial; and 6.44 in the venous blood of the vena cava.

From these experiments it is seen, that the red venous blood of the kidney (and it is presumable that it is the same of the other glandular bloods) differs from ordinary venous blood, in that it is not—so to speak—deoxydized. Thus we find our first hypothesis verified, since this blood preserves the characteristics of the arterial. Nevertheless, if this is true of the proportions of oxygen found, the proposition is not absolutely exact. In fact, the red glandular venous blood contains much less fibrine than the arterial; it contains less water, because it has furnished that of the secretion; and, again, this red venous blood is manifestly more corruptible than the arterial blood—that is to say, becomes spontaneously dark much more rapidly when it has been withdrawn from the vessels, etc.*

Be it as it may, in directing our attention for the moment to the unique object of our present research—that is to say: to what concerns the proportion of oxygen in the glandular venous blood, we discover this very singular fact, that it is during their functions, when they are secreting, that the glands allow the blood to pass without deoxidizing it, while, when they are not acting, and do not expel any product, the blood which escapes is dark, deprived in great part of its oxygen, and charged with carbonic acid.† Here presents anew this antagonism between

* These same properties are remarked of the venous blood of the head, when the great sympathetic has been previously cut at the middle of the neck. The experiments that I have made on this subject since 1852 show, that after the section of the sympathetic, the circulation is considerably accelerated; the temperature increases; the nervous blood becomes red, and the pressure of the circulation is augmented. If we galvanize the superior or peripheral end of the sympathetic, the circulation is diminished in rapidity, the vessels contract, and the temperature is lowered at the same time that the blood becomes very dark. It is particularly in the horse that these facts present themselves with the greatest prominence. This great tendency to decomposition of the red venous blood necessitates that we operate with great celerity in putting it in contact with the oxide of carbon, which prevents its becoming venous, and its deoxidation by the formation of carbonic acid.

† I will not examine the question of the quantity of carbonic acid produced; but will only say, that, with the oxide of carbon, I have never found a quantity of carbonic acid which corresponded to the quantity of oxygen lost; which

the glandular system and the muscular, to which I have often called attention. In the muscles, the blood flows so much the more dark, and the more deoxidized, as the organ acts and contracts more energetically, in the glands, the blood escapes so much the more red, and less deoxidized, as the organ acts, secretes with greater intensity. But, ought we to consider this antagonism in the phenomena apparent as a radical difference in the modes of nutrition, and the functions of the glands and the muscles? In a word, may we say, that the muscles consume the oxygen, in direct ratio to their functions of activity? It is the opposite with the glands. Or, ought we, rather, in the face of this muscular conclusion, conceive doubts of our manner of designating the functional states of the glands?

I am of this last opinion. I think that these researches will lead to another interpretation of what has been termed the states of function and repose of the glands, and will cause us to recognize a state of chemical activity, and another state of functional mechanical action. I could already bring various arguments in favor of this opinion; but, I will conclude, with the plain facts that I have above indicated, limiting myself to signalizing this obscure side of the question, which will serve as a *point de depart* for future researches.

EXTRACTS.

CONVENTION OF MEDICAL TEACHERS,

ASSEMBLED AT LOUISVILLE, MAY 2, 1859.

The Convention of Medical Teachers was called under the following resolution, adopted at the eleventh annual meeting of the American Medical Association, held at Washington City, last year:

Resolved, That we recommend to all the medical colleges entitled to a representation in this body, that they appoint delegates especially instructed to represent them in a meeting

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would indicate that there is probably in the blood something intermediate, between the oxygen and the carbonic acid.

to be held at Louisville on Monday, the day immediately preceding the convention of the American Medical Association for the year 1859, at ten o'clock in the morning, at such place as the committee of arrangement shall designate.

At the hour of 10 the convention was called to order, and Prof. Dixi Crosby, of Dartmouth College, Hanover, N. H., was selected as chairman, and Prof. George C. Blackman, of Ohio Medical College, at Cincinnati, as secretary. Prof. Crosby, on assuming the chair, said that, like all his predecessors called upon to preside over deliberative bodies, he had been taken wholly by surprise, and should have declined had not Dr. Frost, of S. C., and Dr. Davis, previously excused themselves from serving. He could bring the convention no qualification for the position, except an earnest desire to serve them; but this and the support of the members, he hoped, would enable him to meet their approval, and conduct the important deliberations satisfactorily.

Rev. J. H. Haywood was then introduced, and invoked the Divine supervision over the proceedings of the body in an earnest and eloquent prayer.

Some discussion then ensued as to the mode of organization, some wishing all medical professors present to act as delegates, and others desiring that each college should have a unit representation. The following resolution was submitted by Dr. David F. Wright, of Shelby Medical College:

Resolved, That all members of the Faculties of Medical Colleges now present shall be considered members of this convention, but that where more than one belong to the same college, one of them alone shall vote in behalf of that institution.

After some further interchange of views—all tending to the same wish of full representation—on motion of Dr. A. H. Baker, of Cincinnati, the following substitute was offered and adopted:

Resolved, That a committee of three on credentials be appointed by the chair.

Under this resolution, Prof. Crosby selected Drs. Baker, Shattuck and Haskins, as the Committee on Credentials, and the convention took half an hour's recess for the registration of names of delegates.

The Convention was then permanently organized by the reelection of the temporary officers, Prof. Crosby humorously remarking that the delegates were fortunate in this action, inasmuch as they would have no further speech in reference to the

honor conferred, etc. He said, that until the Convention should adopt rules for its government, he should limit speeches to ten minutes, and allow no one to speak more that twice on the same subject, without permission.

Dr. Wright's resolution that members from Medical Colleges who are now present, be permitted to take part in debates, but that each college have but one vote, which was again taken up, considered and passed.

Dr. N. S. Davis offered the following, which was adopted:

Resolved, That a business committee of five be appointed by the chair, to report propositions for the action of the Convention.

The chair appointed Drs. N. S. Davis, Gunn, Frost, Shattuck and Yandell. After a short recess, to enable this committee to report, they submitted the following through Dr. Davis, the Chairman:

1. *Resolved*, That this convention recognizes the great advantages to be derived from the action of the American Medical Association in prescribing the terms and conditions on which medical degrees shall be conferred, and licences to practice medicine shall be granted; and that an expression of opinion as to methods or periods of instruction from the American Medical Association, should be received with deference and respect, and that all pains should be taken to enforce any rules and regulations recommended by that body.

2. That this convention earnestly recommend the American Medical Association to adopt such measures as will secure the efficient practical enforcement of the standard of preliminary education, adopted at its organization in May, 1847; and that the medical colleges will cheerfully receive and record the certificates alluded to in said standard, whenever the profession generally and the preceptors will see that students are properly supplied with them.

3. That no medical college should allow any term of practice to be a substitute for one course of lectures in the requisitions for graduation.

4. *Resolved*, That Hospital Clinical Instruction constitutes a necessary part of medical education, and that every candidate for the degree of Doctor of Medicine should be required to have attended such instruction regularly for a period of not less than five months, during the last year of his period of medical pupilage.

5. *Resolved*, That every medical college should rigidly enforce the rule requiring three full years of medical study before

graduation, and that the diploma of no medical college shall be recognized, which is known to violate this rule.

Prof. Wright, of Nashville, moved that the resolutions of the report be considered *seriatim*—and, the first being taken up, he spoke at length in opposition to it, giving a history of the previous difficulties between the American Medical Association and the medical colleges. He could neither vote for such a resolution; nor could he take any future part in the proceedings of a convention which should adopt it.

Prof. Brainard, of Chicago, thought this convention was asked to take a step fraught with peril to the harmony of the profession and its best interests; it should be met on the threshold, and a solemn protest entered against it. This body did not represent the medical colleges of the country with unanimity—New York, Philadelphia and New Orleans are not represented here, and he must consider their absence as a protest against the assumption of any power on the part of this body or the American Medical Association, to dictate the terms on which the colleges should confer their degrees or receive their students.

The admission of such a resolution would produce hostile factions, both in the profession and in the colleges, and could never receive the sanction of those who had independent, chartered rights to fall back upon. He was opposed to no true improvement in the medical profession, but he did object to shutting that door upon young men desirous of entering the profession, through which we ourselves all had entered.

Without definite action on the resolution, the convention adjourned until 3 o'clock P. M.

AFTERNOON SESSION.

When the convention reassembled, Dr. Bayless offered the following amendments to the first resolution:

1. To substitute in the third line the word "recommending" for "prescribing."

2. To strike out all after the words "deference and respect."

A long discussion ensued on the resolution, which was participated in by Drs. Bayless, Yandell, Palmer, McDowell, Davis, Brainard, Shattuck, Baker and Wright. The differences of opinions seemed almost as various as the number of speeches, and the convention was tying itself into an apparently inextricable entanglement, when an Alexander sprung up, in the person of Prof. L. L. Joynes, of the Medical College of Richmond, Va., who offered the following preamble and resolutions as a substitute for the resolutions from the business committee:

WHEREAS, It appears that a large proportion of the medical colleges of the United States are unrepresented in this convention, and no changes in the present system of education can be effectual unless adopted by the schools generally—

Resolved, That it is inexpedient at this time to take any action upon the proposition contained in the report presented by the Special Committee on Medical Education, at the last meeting of the American Medical Association.

Resolved, That with the view of obtaining a more general union in counsel and in action, upon this important subject, this convention do now adjourn, to meet again on the day preceding the next annual meeting of the American Medical Association, at the place which may be agreed upon for said meeting, and that the several medical colleges in the United States, be requested to appoint each one delegate to such adjourned meeting of this convention.

These resolutions were amended, at the suggestion of Dr. Wright, to include the appointment of a committee of five, to take into consideration, during the recess, the various matters referred to in the resolutions, and to report thereon at the adjourned meeting.

The vote was demanded on this by colleges, and resulted as follows:

Yeas—Shelby Medical College, Missouri Medical College, St. Louis Medical College, Oglethorpe Medical College, Ohio Medical College, Western Reserve Medical College, Kentucky School of Medicine, Medical College, Richmond, Atlanta Medical College, Rush Medical College—10.

Nays—Medical College, S. C., Medical College, Ga., Medical Department University, Mich., University of Louisville, Cincinnati College of Medicine, Lind University, Iowa University, Medical College, Memphis, Harvard University—9.

The substitute was declared adopted, yeas 10, nays 9, and so the convention stood adjourned until the day preceding the next annual meeting of the American Medical Association.

The chairman appointed the following committee under the above resolution: Drs. Yandell, Shattuck, Blackman, Campbell and Gunn.

TWELFTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

ABSTRACT OF PROCEEDINGS.

LOUISVILLE, May 3, 1859.

The Association convened in Mozart Hall, at 11 o'clock A. M., and was called to order by the President, Dr. Harvey Lindsly in the chair, supported by Vice Presidents Drs. W. L. Sutton and T. O. Edwards. The other officers present were the Secretaries, Drs. A. J. Semmes and S. M. Bemiss, and Treasurer Caspar Wister.

The President introduced Rev. Stewart Robinson, of Louisville, who opened the proceedings with prayer.

The chair then declared the Association duly organized, and announced as first in order of business, the report of the Committee of Arrangement.

Dr. R. J. Breckenridge, chairman of this committee, reported as follows:

Mr. President, and Gentlemen of the Association:

It is my grateful office to greet you on this your twelfth anniversary, and tender you a hearty welcome to the city of Louisville. I do this, sir, in behalf of the physicians and citizens generally—citizens, second to none in their intelligent appreciation of the honor and dignity of the profession, and the worthiness and usefulness of its members;—physicians, second to none in their devotion to the great work in which they are engaged.

We have watched, sir, with interest, the formation and progress of this association. We have noted, with equal gratification, the catholicity of its spirit, and the greatness of its designs. We have seen it, in its brief existence, gather into its fold thousands of members—members from every State of the Republic, and without possessing real legislative powers, exercise a most potent influence for good.

Formed for the advancement of science and art—for the gathering, interchange and diffusion of knowledge—for the promotion of fellowship and harmony in the profession, by drawing closer and closer its members, it has *not* wholly failed in the accomplishment of its aims; and we trust for it a future yet more fruitful—harvests yet more abundant.

Feeling that "it is good for us to be here"—approving thoroughly, cordially, the objects of the association—and believing in its capacity for usefulness—we bid you God speed in your

labors, while we heartily welcome you, as honored guests, to our homes.

The Secretary then called the roll.

The President now announced a recess of fifteen minutes, to enable the various State delegations to choose their members for the committee on nominations.

Upon call to order, the following members were reported as the Nominating Committee:

New Hampshire, Dixi Crosby; Massachusetts, Solomon D. Townsend; Rhode Island, J. H. Eldridge; New York, D. M. Reese; New Jersey, A. N. Dougherty; Pennsylvania, R. K. Smith; Delaware, H. F. Askew; Maryland, G. W. Lawrence; District Columbia, Cornelius Boyle; Virginia, L. S. Joynes; North Carolina, Edward Warren, Jun.; South Carolina, J. M. Gaston; Georgia, John W. Jones; Alabama, J. B. Coons; Louisiana, S. O. Scruggs; Tennessee, E. B. Haskins; Kentucky, D. D. Thomson; Ohio, George Fries; Indiana, J. H. Brower; Michigan, William Brodie; Illinois, C. Goodbrake; Missouri, M. L. Linton; Iowa, D. L. McGugin; Wisconsin, C. B. Chapman; Army, Charles S. Tripler.

The President then appointed the following committee on voluntary essays: Drs. L. P. Yandell, of Kentucky, James Bryan, of Philadelphia, and C. G. Comegys, of Ohio.

Dr. R. J. Breckinridge, from the Committee of Arrangements, announced the hours of business from 9 A. M. to 1 P. M., and from 3 P. M. until such hour as the Convention should adjourn upon resolution.

Dr. Harvey Lindsly, the President of the Association, then read his retiring address, which was listened to with marked attention, and was an eloquent tribute to the dignity of the medical profession and the importance of its improvements.

Dr. L. A. Smith, of New Jersey, moved that the thanks of the Association be tendered to the President for his able and eloquent address, and it was ordered to be placed in the hands of the appropriate committee for publication, among the proceedings of the meeting.

Dr. Caspar Wister, chairman of the Committee on Publication, read the annual report, and on motion of Dr. Sayre, of New York, the following resolutions appended to it were adopted:

Resolved, That hereafter every paper intended for publication in the Transactions must not only be placed in the hands of the Committee of Publication by the first of June, but it must also be so prepared as to require no material alteration or addition at the hands of the author.

Resolved, That authors of papers be required to return their proofs within two weeks after their reception, otherwise they will be passed over and omitted from the volume.

Adjourned until 3 o'clock P. M.

AFTERNOON SESSION, 3 O'CLOCK.

Dr. W. L. Sutton, one of the Vice Presidents, took the chair in the absence of the President.

Dr. D. Meredith Reese, of New York, chairman of the committee on nominations, reported the following officers for the ensuing year:

President—Henry Miller, of Kentucky.

Vice Presidents—H. F. Askew, Delaware; Chas. F. Tripler, U. S. Army; L. A. Smith, New Jersey; Calvin West, Indiana.

Treasurer—Caspar Wister, Pennsylvania.

Secretary—S. M. Bemiss, Kentucky.

Dr. Sayre moved the adoption of the report, which was unanimously agreed to.

Dr. Brainard, of Illinois, moved the appointment of a committee to conduct the newly appointed officers to their respective chairs. The acting President selected Drs. Brainard, of Illinois, Mattingly, of Kentucky, Sutton, of Indiana, McDowell, of Missouri, and R. J. Breckinridge of Kentucky, and they accordingly performed the duties assigned to them.

The newly elected President, on taking the chair, addressed the convention in substance as follows:

Gentlemen of the American Medical Association:

I am wholly at a loss to command language to express the deep sense of obligation put upon me by calling me to the presidency of your association. It is an honor any man may well be proud of, and although I admit, in all sincerity, that you might without difficulty have selected an individual more worthy the position, I may be allowed to say you could not have conferred it upon one who would prize it more highly, or cherish it longer with the most grateful recollection. I do esteem it the greatest honor ever conferred upon me by the profession that I love, and to which I have devoted a long life; nay, more, it is the greatest honor that could be conferred upon any man, by the medical or any other profession, in this or any other country; for any decoration of honor, or any mark of approbation conferred by a crowned head, I should regard as a bauble in comparison. Who are you, gentlemen, when rightly considered? You are the rightful representatives of the great American Medical Profession—an army forty thousand strong, and a body of men, no

matter what captious criticism may say in disparaging comparison with the European branch of the profession, in my humble judgment, far superior to the same number of medical men to be found in any quarter of the globe. Although, as a body, you may not be so learned, so critically and nicely framed in all the minutiæ of the profession, yet for strength, integrity and precision in all the great principles guiding to a successful combat with disease, this body is equal if not superior to that of any kingdom of continental Europe.

To be called to the presidency of such a body of men, is, in my sober judgment, the greatest compliment that could be conferred on mortal man, provided that man is a devotee of medicine, who has given his whole mind, soul, heart and strength, individually, to the profession, and has that high regard for it which will not suffer any less noble pursuit to interfere with the daily though laborious duties of the profession.

Coming so recently from a sick bed, and still enfeebled in health, I beg to be excused from further remarks, and desire you to accept this brief and imperfect acknowledgement of the distinguished honor conferred upon me, instead of what, under other circumstances, I might be disposed to say.

Dr. J. B. Lindsly, of Tennessee, offered the following:

Resolved, That a committee of three be appointed by the chair, to inquire into and report upon the propriety of dividing the association into sections for the purpose of performing such parts of its scientific labors as may relate to particular branches of medicine and surgery.

Dr. Brodie moved its reference to the nominating committee.

Dr. Brainard explained at some length the object of the resolution of inquiry, and urged its adoption as the means of giving more effect and usefulness to the proceedings of the association, the reports of which had heretofore gone out unmatured, in consequence of the want of concentrated action.

A motion by Dr. Sayre to lay the motion on the table was negatived, and the motion of Dr. Lindsly was then adopted.

The chair appointed as the committee, Dr. Lindsly of Tennessee, Dr. Brainard of Illinois, Dr. G. C. Blackman of Ohio.

Dr. Davis moved that no person should be permitted to speak more than twice on the same subject, or more than ten minutes at one time, except by consent of the association, which was adopted.

The committee on prize essays was called, but the chairman being temporarily absent, was postponed.

The committee on medical education failed to report.

The committee on medical literature failed to report.

A letter from Dr. J. G. F. Holston, of Ohio, chairman of the special committee on the microscope, was read, reported progress and begging a continuance for more extended investigation, which was referred to the committee on nominations.

A letter from Dr. Stephen Smith of New York, from the special committee on medical jurisprudence, had the same reference.

The special committee on quarantine was not ready to report.

Dr. Mattingly of Kentucky, from the special committee on diseases and mortality of boarding schools, asked a continuance until next year, in order to obtain further information requisite to the full investigation of the important subject. The request was referred to the committee on nominations.

The special committee on surgical operations for the relief of defective vision, on milk sickness, and on the blood corpuscle, had the same reference.

The report from the committee on medical ethics was read, and such portion of it as related to the action of the Dubuque Medical Society in the case of an expelled member, was, on motion of Dr. T. O. Edwards, made the special order for 12 M. to-morrow.

The special committee on government meteorological reports made a report, written by Dr. R. H. Coolidge, of the U. S. Army, but read by Dr. Paul F. Eve, of Tennessee, which was referred to the committee on publication.

The committee appointed in May, 1857, on criminal abortion, submitted a report written by Dr. Storer, of Boston, which was read by Dr. Blatchford, of New York, and referred to the committee on publication. The following resolutions appended to this report were unanimously adopted:

Resolved, That while physicians have long been united in condemning the act of producing abortion, at every period of gestation, except as necessary for preserving the life of either mother or child, it has become the duty of this association, in view of the prevalence and increasing frequency of the crime, publicly to enter an earnest and solemn protest against such unwarrantable destruction of human life.

Resolved, That in pursuance of the grand and noble calling we profess—the saving of human lives—and of the sacred responsibilities thereby devolving upon us, the association present this subject to the attention of the several legislative assemblies of the Union, with the prayer that the laws by which the crime of procuring abortion is attempted to be controlled, may be re-

vised, and that such other action may be taken in the premises as they in their wisdom may deem necessary.

Resolved, That the association request the zealous co-operation of the various State Medical Societies in pressing the subject upon the legislatures of their respective States, and that the president and secretaries of the association are hereby authorized to carry out by memorial these resolutions.

The convention then adjourned till to-morrow morning, at 9 o'clock.

SECOND DAY.

WEDNESDAY, May 4, 1859.

The president, Dr. Miller, called the association to order at 9 o'clock.

Dr. D. Meredith Reese, chairman of the committee on nomination, called attention to the fact that the committee could not act definitely until the place for next year's meeting should be designated. He stated also that the Medical State Society of Connecticut had requested that an amendment to the constitution, proposed two years since, should be taken from the table, relative to the time of meeting.

It was moved by Dr. Blatchford, and seconded by Dr. Sayre, that the amendment to the third article of the constitution be taken up, which proposes to add after the words "first Tuesday of May," the words "or first Tuesday of June," and after the words "shall be determined," add the words "with the time of meeting."

The amendment was adopted by a constitutional vote.

Dr. D. M. Reese also stated that the Connecticut State Society had extended a pressing invitation to the association to hold its next meeting at New Haven, which invitation was referred to the committee on nominations.

Dr. Reese also called attention to the necessity of some radical change in the mode of appointing committees to prepare treatises on scientific subjects to be reported at the annual meetings. It had been seen, that on yesterday, a large majority of the committees made no reports, and did not even see proper to send in any communication explanatory of delay. The difficulty heretofore has originated in the mode of selection adopted by the nominating committee. It has been customary for gentlemen to hand in their names and the proposed subjects, on slips of paper, and the committee, without further investigation, have so published in the annual reports. Thus it has happened that appointments have been most injudiciously made,

and gentlemen to whom a special duty has been assigned, have been found to know less of that than any other subject. We therefore hoped that no committee of last year would be re-appointed or continued, from which no report had been had, and no communication received.

On motion, the nominating committee was unanimously instructed to act upon the suggestions of the chairman, who also stated, that there should be some definite expression of disapprobation as to the course of these gentlemen who had volunteered essays, and had their names reported in the newspapers, and spread over the land, and then paid no attention to the matter.

Dr. Flint, from the committee on prize essays, begged leave to report that they received four dissertations in time for a careful and thorough examination, and two others, quite voluminous, only two days before the meeting of the association. The latter we have felt constrained to exclude altogether from the competition of the present year, on account of the absolute impossibility of reading them with a critical purpose and effect. The others have been carefully examined by all the surviving members of the committee—one estimable associate, Dr. Evans, having been called from all his earthly labors before the active duties of the committee began.

More than one of the four essays we examined exhibited much labor and a commendable scholarship in their preparation —are voluminous, and in some respects very meritorious papers; but in the unanimous judgment of the committee, neither of them possesses the degree and species of merit which should entitle its author to the association prize.

The committee beg leave furthermore to report, that in their opinion, and as the suggestion of their own recent experience, the association should determine in more precise and formal manner than has yet been done, the terms and conditions of competition and of success in the contest for prizes, for the government alike of contestants and the committee of adjudication, and that a committee be now appointed to consider and report upon that subject.

Dr. Gordon, chairman of committee on etiology and pathology of cholera, made a partial report, and asked continuance of time.

On motion, the report was accepted, and referred to committee on publication, and petition for continuance referred to nominating committee.

Dr. J. B. Lindsly, chairman of the committee appointed to inquire into the propriety of dividing the association into sec-

tions, for the better performance of its work in considering the various branches of medicine and surgery, recommended the adoption of such a plan, as being indispensably necessary to making this body a working scientific association. They do not deem it necessary to enter into any argument in favor of this plan, it being the one already universally adopted by similar bodies. They would simply recommend for the present, a division into the following sections, as being most suitable to facilitate the transaction of business, viz :

1. Anatomy and Physiology.
2. Chemistry and Materia Medica.
3. Practical Medicine and Obstetrics.
4. Surgery.

The committee do not propose that this subdivision of labor shall in any manner interfere with the regular business of the association as now conducted; but only, that after having assembled each day in general session, each section shall meet separately for the purpose of hearing and discussing papers on such subjects as properly belong to them, and they therefore recommend that the committee of arrangements for the ensuing year, be requested to provide suitable accommodations for the services of these sections, and that each of said sections shall be authorized to make such arrangements as may be required for the proper transaction of its business.

This report was considered and adopted after a very able speech in its support, by Dr. Davis.

Dr. J. B. Flint offered the following resolution :

Whereas, Our brethren of Great Britain are engaged in erecting a monument to the memory of John Hunter, whose invaluable services in behalf of Physiology and Surgery are recognized and honored, as well on this side of the Atlantic as in Europe; and whereas, this association, as the representatives of American medicine, would rejoice in some suitable manner to participate in so grateful a testimonial of gratitude and respect—therefore,

Resolved, That a committee of three be appointed, to consider in what manner this participation can best be effected, so as to be acceptable to our British brethren, and consistent with our own means and opportunities of action, with instructions to report at the next annual meeting.

The resolution was adopted, and Drs. Flint, Bowditch, and Shattuck appointed as the committee.

Dr. Harvey Lindsly offered the following :

WHEREAS, Parliamentary rules of order are numerous, complicated, sometimes obscure, and often inapplicable to such a body as the American Medical Association, and whereas, from the nature of the pursuits of medical men, they cannot be familiar with these rules—therefore,

Resolved, That a select committee of three members be appointed to prepare a system of rules for the government of this association, as few in number, as concise and as perspicuous as possible, to be reported at the next annual meeting.

This resolution was adopted, and Drs. H. Lindsly, C. G. Comegys, and T. W. Blatchford appointed as a committee.

The nominating committee made the following report:

The next annual meeting to take place at New Haven, on the first Tuesday of June, 1860. Dr. Eli Ives to be junior secretary.

Committee of arrangements—Drs. Charles Hooker, Stephen G. Hubbard, and Benjamin Sullivan, jr., with power to add to their number.

Committee on prize essays—Drs. Worthington Hooker, Conn.; G. C. Shattuck, Mass.; Usher Parsons, R. I.; P. A. Jewett, Conn.; and John Knight, Conn.

The association took up the special order, being the report on medical ethics, to which had been referred the action of the Dubuque Medical Society, which, after debate, was laid over until 12 o'clock to-morrow.

On motion of Dr. H. F. Campbell, a section of meteorology, medical topography, and epidemic diseases, and of medical jurisprudence and hygiene, was added to those already adopted by this association.

The association then proceeded to consider and act upon amendments to the constitution proposed at the last annual meeting, and laid over under the rules.

The following amendment was adopted:

Resolved, That the constitution of this association be so amended as to provide that no individual who shall be under sentence of expulsion or suspension from any State or local medical society, of which he may have been a member, shall be received as a delegate to this body, or be allowed any of the privileges of a member, until he shall have been relieved from the said sentence by such State or local society.

The next amendment, lying over from last year, was the proposition of Dr. Kyle of Ohio,

That the constitution of the association be so amended as to prohibit the admission as a delegate or the recognition as a

member, of any person who is not a graduate of some respectable medical college.

This amendment was rejected, but, on the question of reconsideration, a long and animated debate ensued. Without arriving at a vote, the association adjourned for dinner.

AFTERNOON SESSION.

The association was called to order at 3 P. M., Dr. M. F. Askew in the chair. The discussion on the amendment under consideration at the hour of adjournment was renewed.

Dr. Kincaid moved a further amendment, to insert the word "hereafter" after "prohibiting."

The chair ruled the amendment out of order at the present stage, or until the association decides upon the question of reconsideration.

After a long discussion, Dr. Davis of Ind., moved to lay the motion to reconsider on the table, which was carried, 97 yeas, nays not counted—so the amendment stands registered.

The next proposed amendment to the Constitution was that suggested by the New Jersey Medical Society, asking for such changes as would establish a Board of Censors in every judicial district of the Supreme Court, who should examine and grant diplomas to all proper members of the Association.

This was temporarily laid on the table for Dr. Crosby to offer a report of the Medical Teachers' Convention which met on Monday last. He strongly recommended a committee from this body to confer with the Teachers' Committee, and felt great confidence that something beneficial to medical education would be the effect of such conference.

Dr. Comegys moved the appointment of a committee of five to confer with the committee of medical teachers and report at the next annual meeting, provided that no medical teacher be selected on the part of this association.

Dr. T. M. Blatchford, of New York, offered as a substitute the following preamble and resolution:

WHEREAS, of all the subjects which can engage our attention in our associate capacity, that of medical education is paramount; and whereas, harmony of action is essential to success in establishing definite qualifications entitling to admission in our ranks; and whereas, nothing can be gained by hasty action in a matter so vital to our very existence, as a permanent medical institution—therefore,

Resolved, That further action be suspended for the present upon the subject of the resolutions offered at the last meeting

of the Association, by the chairman of the special committee on medical education, and that a committee consisting of S. W. Butler, of Pennsylvania, L. A. Smith, of New Jersey, Dixi Crosby, of New Hampshire, C. A. Pope, of Mo., and T. Buckler, of Maryland, shall be appointed to confer with the committee appointed at the meeting of medical teachers, to report some plan of action at the next meeting of the association.

This amendment was lost, and the original resolution adopted.

The resolutions from the New Jersey Medical Society were then taken from the table and referred to the committee of conference.

Dr. Davis offered a resolution instructing the same committee to confer with the State Medical Societies, for the purpose of procuring more decisive and uniform action throughout the profession, in carrying into effect the standard of preliminary education adopted by this association at its organization in 1847. This was carried.

Dr. Gibbes, from the committee to examine into a plan of uniform registration of births, marriages and deaths, offered the following report:

They have given the same a careful consideration, and they unanimously recommend that the report be adopted and referred to the committee on publication.

They also recommend that the same committee be continued, with instructions to add to the report in time for publication in the ensuing volume of transactions, a form of registration law which may be likely to answer the requirements of the several States.

Dr. Sayre, of New York, offered the following:

Whereas, The medical profession at large have an interest in the character and qualifications of those who are to be admitted as their associates in the profession—therefore,

Resolved, That each State Medical Society be requested to appoint annually two delegates for each college in that State, whose duty it shall be to attend the examinations of all candidates for graduation; and that the colleges be requested to permit such delegates to participate in the examination, and vote on the qualifications of all such candidates.

This was, on motion, referred to the committee of conference.

The paper of Dr. Jones, presented at the morning session, was taken from the committee on publication and referred to the committee on prize essays.

Dr. Eve moved to record the name of Dr. Benj. W. Dudley, as a permanent member, which was adopted by a unanimous vote, the delegates all rising to their feet, in token of respect.

Adjourned till to-morrow morning, at 9 o'clock.

THIRD DAY.

THURSDAY, May 9, 1859.

The President called the Association to order at 9 o'clock, and the reading of the minutes of yesterday was dispensed with.

The first business in order was an amendment to the Constitution, laid over from last year, and proposed by Dr. T. L. Mason, of New York, to insert in the first line of the second paragraph of Article 2, after the words "shall receive the appointment from," the words "any medical society permanently organized in accordance with the laws regulating the practice of physic and surgery in the State in which they are situated, and consisting of physicians and surgeons regularly authorized to practice their profession."

Also to add to the sixth paragraph of the same article the words, "but each permanent member of the first class designated in this plan of organization shall be entitled to a seat in the Association on his presenting to this body a certificate of his good standing, signed by the Secretary of the Society to which he may belong at the time of each annual meeting of this body."

Dr. Lyndon A. Smith, of New Jersey, said amendments to the Constitution should be adopted with care, and though, perhaps, that now proposed might be desirable, still, as Dr. Mason, who had proposed it, was not present to explain his views, he moved that the subject be laid over until next year. This suggestion was adopted.

Another constitutional amendment, proposed by Dr. Henry Hartshorne, of Pennsylvania, and laid over from last year under the rules, provides to add to the second article the words, "No one expelled from this Association shall at any time thereafter be received as a delegate or member, unless by a three-fourths vote of the members present at the meeting to which he is sent, or at which he is proposed."

This amendment was adopted.

Another amendment, proposed by J. Berrien Lindsly, of Tennessee, was called up, to omit in article 2 the words, "medical colleges, hospitals, lunatic asylums, and other permanently organized medical institutions in good standing in the United States," and also to omit the words, "The faculty of every regularly constituted medical college or chartered school of medicine shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital containing a hundred inmates or more shall have the privilege of sending two delegates, and every other permanently organized

medical institution of good standing shall have the privilege of sending one delegate."

This was laid on the table until the next annual meeting.

Dr. Sayre offered the following, which were adopted by acclamation:

Resolved, That the thanks of the American Medical Association are eminently due and are hereby presented to the citizens of Louisville, Ky., for the princely hospitality publicly and privately extended to the members of this body during its present session.

Resolved, That to the Committee of Arrangements and the Profession of Louisville generally, our tnanks are due for their kind and assiduous attention to the Association, and for the hearty welcome with which they have greeted our Convention in their flourishing city.

After the transaction of some other unimportant routine business,

On motion of Dr. Davis, the Association adjourned to meet at New Haven on the first Tuesday in June, 1860.

The registration book during the day announced the names of Drs. D. G. Thomas, of New York, William S. Cain, of Kentucky, and Peter Allen, R. K. McMeans, and W. R. Kable, of Ohio,—making 305 members in attendance during the session of the Association.—*Semi-Monthly Medical News.*

BOOK AND PAMPHLET NOTICES.

A Practical Treatise on the Diseases of Infancy and Childhood. By T. H. Tanner, M. D., F. L. S., Licentiate of the Royal College of Physicians; late Physician to the Hospital for Women, etc., etc. Philadelphia: Lindsay & Blakiston, 1859.

This is a small work, but one of great value—treating upon a most interesting class of patients, and the diseases peculiar to them.

The importance of understanding, thoroughly, the diseases of infancy, cannot be easily over-estimated. The fact that in some of the public institutions of England, less than a century ago, *twenty-three* of every *twenty-four* infants, were, for a long time, allowed to die under one year of age, and another fact, that even now, in large cities, about one-fourth die before they

attain their fifth year—demonstrate the importance of studying the diseases of infancy, and prove that much may be done by enlightened and well directed efforts to abate infant mortality, and also that much still remains to be done.

The practical teaching in this book is based, as it should be, upon the *peculiarities* of the organization of infants, a knowledge of which is the foundation of success in the treatment of this class of cases.

The chief structural differences are these: the tissues generally are softer, much more vascular, and more loaded with fluid; the glandular, lymphatic, and capillary systems predominate; the skin and mucous membranes are very delicate, soft, and sensitive; the brain is large and vascular, though so soft as to be almost fluid; and there is excessive nervous excitability. The term of infancy being essentially the period of growth, the organs of alimentation are those which are the most fully developed, as they are those which are the most actively employed; indeed, it may be said that at this age the functions are confined almost exclusively to nutrition.

Considerable space is devoted to the hygienic management of children, and the therapeutics of infancy, much of which we would gladly extract, had we room in the present number of the Journal, but must content ourselves with a few quotations from the treatment of some of the more important diseases. We will begin with scarlatina.

We have long doubted whether the the great fatality which so often attends scarlet fever, was an inevitable consequence of the nature of the disease; and have believed, that if the profession would regard as their duty, in self-limited diseases, simply to conduct to a favorable termination by preventing local complications, without attempting to abbreviate the disease by active interference, we might hope for a diminution in the fatality of this disease, as well as of the terror with which it is regarded by the public. We give the author's views of the treatment of scarlatina, as according very nearly with our own.

Treatment.—The treatment of scarlatina yet remains to be considered. The *simple form*, says Sydenham, is "fatal only through the officiousness of the doctor." It requires no treatment beyond confinement to the house for at least two or three weeks after all symptoms of the disease have disappeared, warm

clothing, spare diet, and attention to the bowels. In *scarlatina anginosa* the treatment is often much the same as that for many cases of continued fever. Cold or tepid sponging where there is great heat; perfect ventilation of the sick-room, without draughts of cold air; emetics when the tongue is much coated, and nausea and irritability of the stomach exist; shaving the scalp, and the application of cold lotions where there is much delirium; great caution in the use of antiphlogistic medicines—as antimony; and a strict avoidance of bleeding, even by two or three leeches. Purgatives judiciously employed will often obviate the necessity for lowering measures of any other kind, but they must on no account be given too freely, or in too large doses. Saline medicines are grateful and cooling; or, where the pulse is feeble, effervescing draughts containing an excess of ammonia. When there are decided symptoms of depression or collapse, wine, cordial draughts of ammonia, æther, and camphor, and nourishing food, must be ordered.

In *malignant scarlet fever*, a stimulating plan of treatment, such as that so successfully pursued by Dr. Todd, myself, and others in typhus, alone offers any chance of success. The vital powers are so prostrated by the deadly force of the poison, that unless we support them by the free administration of brandy, wine, and bark, they will fail altogether. When seen early, however, the treatment may be advantageously commenced by a mild emetic. The gangrenous ulceration of the fauces, which often complicates this form, will be also best combated by the use of stimulants and the local application of a solution of the chloride of soda: but when very severe, the throat and fauces must be swabbed with a strong solution of nitrate of silver—gr. x. to ℥j. The chlorate of potash drink will be useful. Chlorine itself is used by some practitioners, who speak highly of its good effects, in even the worst cases. Belladonna, in very minute doses, has been recommended as a prophylactic against scarlatina. In an epidemic of this disease which occurred on board Her Majesty's ships "Agamemnon" and "Odin," in 1853, this remedy was freely tried, without the slightest benefit.

Upon the pathology and treatment of croup, we take the following:

Pathology.—From the foregoing it seems evident that this disease consists of inflammation of the mucous membrane, exciting spasmodic action in the larynx and trachea, and giving rise to a peculiar product—a psuedo-membranous secretion. The result is imperfect aeration of the blood, for the access of air to

the minute vessels is impeded by the spasm as well as by the accumulation of the croupal productions.

The question as to whether the inflammation is of a simple kind, or dependent upon some specific poison in the system—as is the case with the eruptive fevers, etc.—has been entertained but not satisfactorily answered. My own views are certainly in favor of the latter opinion, and for these reasons:—the second attacks of croup are—as a rule—much less severe than the first, because the susceptibility of the system to the action of the poison is partly exhausted, just as is seen in the practice of syphilisation: the occasional prevalence of the disease in an epidemic form, seems to indicate a specific agent as its cause: when laryngitis is excited in children by some poisonous irritant, or by drinking boiling water from the spout of a tea-kettle, the results are very different, and false membranes are not exuded, even though the inflammation extend to the trachea.

When the inflammatory action is established, there are three remedies on which all authorities teach us to rely,—viz. blood-letting, tartar emetic, and mercury. Perhaps there is no infantile disorder which is so surely and early recognized by practitioners, and so zealously and perseveringly treated on this plan, as croup; for mistakes in diagnosis are very rare, and errors in treatment are seldom committed,—supposing that the authorities are correct. The question may well be asked then, —How is it that this disease is so fatal? I believe, from my own experience, because one of the chief agents is not only inappropriate but mischievous. Every physician knows that when he is summoned to a consultation on a case of croup, he is sure to find that the sufferer has been freely bled, either generally or locally; and he probably is informed that *in spite* of the loss of blood the inflammation increased. It never strikes the practitioner that he should say—"in consequence of;" yet it would probably be nearer the truth. I would strongly urge then, that this plan of indiscriminate bleeding be discontinued; that the case be fairly looked at, in all its bearings; that the sufferer's constitution and the condition of his vital powers be fully taken into consideration; and that we hesitate to deprive the flesh of that which we are told is its life, simply because there is inflammation of the air-tube, and books tell us to treat this dangerous affection by bleeding. Moreover we are taught to bleed very freely when the child is plethoric and robust, full of blood, full of life, healthy and vigorous, with all its powers active. But are such, the children who—generally speaking—suffer from this disease? Certainly not in town practice. And again, will bleeding render impure blood pure, or will it check

inflammation? Is conjunctivitis controlled by the application of leeches round the orbit? does the vascularity decrease as the blood flows? I have never seen it do so. In rheumatic fever, which are the cases that are most liable to be affected with pericarditis or endocarditis? Is it not those that have been bled? Do women who have had natural labors suffer most frequently from puerperal metritis, or such as have had severe floodings? According to my own experience undoubtedly the latter. In short, I would counsel every practitioner to think and reason for himself: to scan every case of inflammation narrowly, and ask himself—Is there an excess of healthy blood here? and even if there be, will it not be required by-and-by to support the system under the prostrating effects of the disease? and finally—to consider well the result which has followed the employment of depletion when he has resorted to it or has actually witnessed its employment, and if he find that the good derived from the use of the lancet has been more than problematical, then I would advise him to throw the instrument away, let authorities say what they may.

But if we are not to bleed in a severe case of croup, what are we to do? When the patient is seen at the onset of the disease, the inflammatory action may sometimes be arrested by hot fomentations alone—as recommended by Dr. Lehman and successfully practised by Dr. Graves. A sponge, the size of a large fist, dipped in water as hot as the hand can bear, must be gently squeezed half dry, and instantly applied beneath the little sufferer's chin, over the larynx; the temperature being maintained by resoaking it every two or three minutes. A steady perseverance in this plan for twenty or thirty minutes, produces vivid redness of the skin over the whole surface of the throat; while under the influence of this topical treatment, a gentle perspiration breaks out—to be encouraged by warm diluents. A notable diminution also takes place in the cough, hoarseness, tone of voice, dyspnœa, restlessness, etc.; and generally a sound sleep is enjoyed, from which the patient awakes nearly well. Supposing that this amelioration does not take place, very little time has been lost, and we must resort to emetics—a most valuable class of remedies. The ipecacuanha wine—in doses varying from one drachm to two drachms, according to the age—should be given every fifteen minutes until free vomiting has been induced; and unless the breathing is relieved, a dose sufficient to keep up the nausea should be repeated every three or four hours until decided ease is afforded. When this is obtained, great benefit will result from the administration of a draught containing a little antimony, ipecacuanha, etc., every two or

three hours; repeating the emetic of ipecacuanha every eight or ten hours according to the symptoms. In cases where prostration appears to be coming on, an emetic of alum or of sulphate of copper will be preferable to the ipecacuanha; while a mixture containing some ammonia and senega may also be judicially substituted for the antimonial medicine. At the same time that this plan is pursued, the temperature of the body is to be taken by a thermometer placed under the armpit, or with care under the tongue; and if—as it usually is in the first and second stages—the degree of heat is above the normal standard, a warm bath ought to be administered, and the patient immersed in it up to the chin for fifteen or thirty minutes, according to the effect produced. It is of course clear, that a patient having a temperature of 104° or 105° Fah., must part rapidly with some of this heat, if placed in water warmed only to 96° Fah.; unless as fast as the heat is given off it be regenerated. This bath is not only cooling, but sedative; it may be repeated twice or thrice in the twenty-four hours, but only under the personal superintendence of the practitioner. To avoid alarming the child, the bath should not be prepared in its presence; and when brought into the sick-room the top of it should be covered with a blanket, on which the patient can then be placed and slowly lowered into the water. A piece of wood or some toy may be floated on the surface, to engage the attention of the little sufferer.

Supposing that the disease advances notwithstanding these measures, or supposing that we only see the case when it has reached the end of the second stage, I resort at once to the use of the iodide of potassium in preference to any other remedy; and frequently—but especially if there be much depression—I combine with it some tincture of assafœtida and decoction of senega. I think also that the application of the compound tincture of iodine to the outside of the windpipe, about once in every twelve hours does good; and provided that it does not raise a blister, it can do no harm. If the practitioner have great faith in mercury preventing the formation of false membranes in croup, I would advise him not to omit the iodide of potassium, but to combine with it mercurial inunction, half a drachm or even a drachm being gently rubbed in every four or six hours.

No mention is made by the author of the remedy which we regard as unquestionably the most efficient in the treatment of croup. We refer to the hydrarg. sulph. flav. or turpeth mineral. This medicine is so safe and certain in its operation in this

disease, that we have been in the habit of using it for a number of years, and rely almost exclusively upon it; and from experience with it, we commence the treatment of a case of croup with nearly the same confidence that we would an intermittent. It may be given in any stage of the disease, agreeably to the directions of the U. S. D.

From the severity of the symptoms sometimes attending ulceration stomatitis, and from the ease with which it is managed, we extract the following:

Ulcerative Stomatitis, or Noma.—This disease attacks the gums; the ulceration sometimes progressing to such an extent as to destroy these parts and denude the teeth. In all cases it produces heat of the mouth, an increased flow of saliva, an offensive breath, swelling of the upper lip, and enlargement with tenderness of the submaxillary glands: while on looking in the mouth we shall see that the gums are swollen, red or violet colored, readily bleeding to the touch, and covered with a layer of pulpy greyish matter. If the disease be allowed to creep on unchecked, the gums will be destroyed by the ulceration, and the teeth become exposed and loosened until they fall out; the morbid action also spreads to the inside of the cheeks, which become covered with irregular sloughing ulcerations, and the tongue assumes a swollen and sodden appearance. Ulcerative stomatitis is not uncommon: it occurs for the most part in weakly children who have been badly nourished, and exposed to cold and damp.

The *treatment* of this disease is not difficult, inasmuch as we possess in the chlorate of potash a remedy which may almost be deemed a specific. Five grains of this salt may be given every four or six hours to an infant one year old, in a little sugar and water. When the ulcerations have healed, bark or quinine should be administered.

This book would be a valuable addition to the library of any physician. For sale by W. B. KEEN, 148 Lake street. M.

FIRST ANNUAL REPORT OF THE CHICAGO CHARITABLE EYE AND EAR INFIRMARY. Chicago, 1859. James Barnet, Printer.

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	WILLIAM H. BALTZELL, M. D.,	

The number of cases treated during the past year, which is the first, is 115—of which, 95 were of the eye, and 20 of the ear. The following extracts from the report will exhibit the objects and necessity of its being established:

Every philanthropist must rejoice, that the blind are furnished by the public bounty with such an institution. Its establishment reflects honor upon the State, and it should be maintained at any cost. But how much more in accordance with an enlightened humanity, and, in an economical view, how much more reasonable and advantageous, to provide the necessary means, comparatively so small, for institutions devoted to the *prevention* of blindness—and thus, in the most effective manner, avert the misery which must always attend it, as well as the burdens, private or public, it must entail.

In conclusion, the surgeons would again particularly impress upon the minds of the trustees and the public, that charities of this kind are not designed for the support of those who have become helpless, and hopelessly dependent, from the effects of vice and disease, and who are always maintained at a large expense. They have for their object, the prevention of one of the greatest calamities which can befall a human being—blindness; the sad consequences of which, to their full extent, it is hardly in the power of the imagination to conceive, still less, to portray.

We only deem it useful to say in behalf of this charity, that it is under the management of Drs. Holmes and Baltzell, who are entirely competent to take charge of it, and we recommend physicians who may have occasion to give advice to those laboring under diseases of the eye and ear, in regard to those to whom they should apply, to direct them to these gentlemen. They will thus not only do them a service, but be the means of keeping them out of the hands of those who circulate advertisements to entrap the unwary, and who are but too ready to take advantage of the hopes and credulity of the unfortunate.

EDITORIAL.

FIRST ANNUAL ANNOUNCEMENT OF THE MEDICAL DEPARTMENT OF LIND UNIVERSITY, AT CHICAGO, ILL., 1859-60.

As journalists, we feel bound to chronicle so important an event as the establishment of a new medical school in Chicago. As a teacher, we feel called upon to make some comments on the peculiar claims to superiority put forth in this announcement. As it is in the hands of all our subscribers, we are saved the room necessary to give the announcement entire, which we should otherwise prefer to do.

The following extracts will sufficiently indicate the changes proposed by this new organization.

PLAN OF INSTRUCTION.—Each college term will consist of two departments, essentially distinct from each other, but carried on simultaneously. The first, called the *junior department*, will embrace full courses of lectures and demonstrations on the following branches, viz: Descriptive Anatomy, Physiology and Histology, Materia Medica and General Therapeutics, General Pathology and Public Hygiene, Inorganic Chemistry, and Practical Anatomy, under the direction of the demonstrator, and is designed for all students attending the first course of lectures.

All medical students in this department will be examined at the end of the term, on the branches taught in the course, and if such examination be satisfactory, it will be final for those branches.

The second, called the *senior department*, will embrace full courses of lectures on the principles and practice of Surgery, Surgical Anatomy, Obstetrics and Diseases of Women and Children, Practice of Medicine, Organic Chemistry and Toxicology, Medical Jurisprudence, Clinical Medicine and Surgery in the Hospital, and Dissections under the demonstrator, and is designed for the students attending their second course.

The regular annual course of lectures in the medical department of the Lind University, will commence on the second Monday in October next, and end on the first Monday in March following.

The class in each department will receive *four* regular lectures daily, throughout the term.

By carefully noting this plan, it will be seen that it differs from that pursued in all the colleges in the United States, (ex-

cept that at Ann Arbor, Mich.,) in that it proposes to make a full course of lectures comprise 430 lectures, delivered in twenty weeks, instead of 576 lectures, delivered in sixteen weeks, as is the present practice. The new faculty think that "the attempt to teach the whole of medical science and art, by six or seven professors, in four months," is a "defect" of a most "mischievous character," but that this can very readily be effected by five professors in five months, and by a smaller number of lectures. The simple statement of this change is sufficient to show that it is not an improvement.

2. "The last prominent defect in the prevailing system of medical instruction, which we shall mention, consists in requiring the student to attend so many lectures daily, that he has no adequate time for reflection," etc. So say the reformers. Is six hours a day too much time for healthy young men to be instructed, during our term of four or five months? Let us look at our public schools, and see what is required of boys twelve or fourteen years of age. Such boys are kept six hours in school, and required to get lessons as various and as numerous as those required of medical students. In the high school much more is required, and there is no good literary institution or college in which more application is not *required* for nine or ten months of the year than is *expected* of medical students for four or five.

Six hours for lectures, and a suitable time for reading, is no more than is requisite for mental discipline, and for keeping students from indolent habits and dangerous associations in a city; and the assertion that it is too much, contains an error to which the student should by no means listen. Having had considerable experience, and some association with men now eminent in the profession, we think it safe to assert that twelve hours a day for study, for six years, is not too much for acquiring a proper knowledge of the science of medicine—none too much for the proper development of the mental faculties, and, properly divided, none too much for health.

3. The medical department of the Lind University proposes to reform and improve medical education, by providing that a student shall enter practice after attending one course of lectures on anatomy, comprising 80 lectures, instead of two courses

of 96 each, as is now the custom in medical colleges. So of surgery and other branches. Is this reform? The argument that the study of certain branches must precede others, is fallacious. Anatomy and surgery should go hand in hand—so of the study of medicinal substances and their uses. In regard to this curtailing the number of courses, and of lectures on important branches, we feel inclined to quote from this circular, the language employed in regard to the courses of the first medical colleges of this country—"No parallel to this absurdity can be found in any other branch of education in this country."

The circular proceeds to say, that it was these defects that led to the organization of the American Medical Association, in 1846–7. If the end and object of this association was and is to reduce the number of lectures, without improving their quality—to lengthen the term without adding to the means of teaching or of learning—if the programme of the medical department of the Lind University be its culminating point—(which we are far from believing)—then indeed, has the "mountain labored and brought forth a mouse."

For ourselves, we regard this new plan as utterly visionary. We propose to adhere to the plan of instruction now generally pursued throughout the country; to improve upon and perfect, if practicable; but not to destroy it. We believe it to be essentially good, and adapted to the wants of the profession, and especially of students in this country. Students are not generally wealthy, and but few of them have the means of attending lectures more than four months. Even the eloquence of these professors has often failed to induce them to remain that length of time, to hear lectures for which they had already paid. It is a system by which almost every eminent and learned man in this country has been principally educated, and we conceive that denouncing it as the way "in which the country (and especially the western part of it) is kept full of half-educated physicians," is neither just nor wise—neither calculated to improve the profession, nor to assert its just claims to respect before the public. It is an unjust attack upon physicians and schools, especially in the West, which irregular practitioners will not fail to turn to account.

There is still another point in this announcement, which must not be passed over without notice. It states, "There will be two cliniques in the College, and four in the Mercy Hospital, each week." What is this Mercy Hospital, and how do these gentlemen acquire their rights to dispose of it?

We can answer this question. In 1851, some of the professors of Rush Medical College, and other persons, friends of the institution, established the "Illinois General Hospital," with a charter obtained from the legislature. This, after being in full operation for some months, was transferred to the present proprietors of the Mercy Hospital, or their purchasers, together with "all the furniture, beds, bedding, stoves, chairs, tables, carpeting, and other fixtures belonging to, and hitherto in the use and possession of said Illinois General Hospital of the Lakes."

"And said party of the second part covenants and agrees to and with said parties of the first part, in consideration of said sale and transfer, that the trustees of the Rush Medical College, of said City of Chicago, shall, at all times hereafter, so long as said Mercy Hospital shall be maintained," * * * * "be permitted to appoint attending physicians and surgeons for the wards of said Mercy Hospital." The right was reserved to the proprietors of the Mercy Hospital, "to appoint one attending physician, whose term of office shall be during the vacation of Rush Medical College."

The members of the faculty of the medical department of the Lind University, who propose to give clinics in this hospital, during the coming winter, hold their position in violation of the above agreement, and it will be interesting to discover by what kind of ethics, men so conscientiously opposed to a lecture term of four months, that they could no longer continue to participate in it, will be able to retain places, and the use of property, to which they have no right. Their course in reference to this point will no doubt be such as high-minded men always pursue. It would be unjust to suspect them of any design, which, if carried into effect, would be derogatory to their characters as honorable men, and we therefore defer comment until their decision shall be made known.

"The object of the medical faculty of this university is to establish a medical school on such a basis as will afford facilities for as thorough a medical education as can be obtained in Europe." It will be admitted by all, that the object is still sufficiently far from its accomplishment. In a city which has no hospital, excepting one established by Rush Medical College, and in which the united efforts of the profession have as yet been insufficient to induce the authorities to open one, these gentlemen create a division, by which the influence of the medical faculty is likely to be diminished. Where there is scarcely a rudiment of a medical library, or a museum, they propose to divide instead of concentrating efforts to provide them. The tendency of this movement is essentially destructive. It proposes to add nothing whatever to the education of the student, the requirements for graduation, or the means of acquiring knowledge. In many respects, it diminishes these; and whatever other merits it may have, seems to us very far from having that of improvement or reform.

MISCELLANEOUS MEDICAL INTELLIGENCE.

DEATH OF DR. KIRWIN, OF OTTAWA.

OTTAWA, ILL., May 6th, 1859.

At a special meeting of the "Ottawa City Medical Society," a resolution was passed, appointing a committee of three, consisting of Drs. Haid, Stout and Haughey, to draft resolutions expressive of the sense of the society, on the occasion of the death of Philip Kirwin, M.D.

In compliance with the above, the following preamble and resolutions were presented and unanimously adopted:

WHEREAS, In the disposition of Divine Providence, one of our number, Philip Kirwin, M.D., has been removed from this life,

Resolved, That we deeply regret the loss which we are called upon to sustain, in the death of one who, for many years, has been an active member of our society, and who, during that

time, has endeared himself to its members by his estimable qualities as a gentleman, a citizen, and a physician.

Resolved, That we tender our heartfelt sympathies to his family and relatives, in their bereavement.

Resolved, That a copy of the foregoing preamble and resolutions be presented to the family of the deceased, and also to the journals of this city, and to the Chicago Medical Journal.

Prof. Brainard:

In the March number of the Journal is an article headed, "Stomatitis Materna—Report of Committee on Practial Medicine, of Illinois State Medical Society, for 1858—A Correction, etc."

I do not think it advisable to fill a medical journal with matters of personal controversy, but think a few words are called for in the present instance.

The reference to Dr. Hutchinson is found in the contribution of Dr. Payne, a member of the committee; and, however the mistake was made, the committee stand corrected. Allusion is made by Dr. Green, to what he considers an important omission in the report, viz.: the use of chlorate potassa in stomatitis materna. He is "wholly unprepared to assign reasons that influenced the committee to *ignore* a remedy which, of late, has received so much prominence in the hands of the profession."

I would call attention to what is made the duty, by the society, of the Committee on Practical Medicine: "They shall prepare an annual report on the most important improvements effected in *this State*, in the management of individual diseases, and on the progress of epidemics; referring, as occasion requires, to medical topography, and to the character of prevailing diseases in special localities, during the term of their service." Soon after their appointment, the committee issued circulars to the profession of the State, and caused a copy to be published in the Chicago Medical Journal. It will be seen, then, what would naturally constitute the material from which the report of the committee would be made.

The chairman, during the year, endeavored to glean from sources within the State, all that could be obtained, upon the subjects embraced in the circular. Chlorate of potassa received a share of notice, and all that could be collected from sources within the State, was presented. If Dr. Green, or any other member of the profession in Indiana, had found the medicine in question a valuable remedy in stomatitis materna, it was his duty to report it, and not lay a charge of discourtesy to a committee, a year after their report was written, for omitting what had not come to their notice.

Thinking the above remarks will show how far the committee were guilty of any want of regard to the profession, I remain

Very respectfully, Yours,

F. K. BAILEY,

Chairman of Committee, etc., for 1858.

JOLIET, April, 1859.

HANCOCK MEDICAL ASSOCIATION.

The seventh annual meeting of Hancock Medical Association was held in Warsaw, Wednesday, April 20th, 1859. Dr. Hollowbush in the chair. Dr. S. L. Comer was elected a member. The following were elected officers for the ensuing year:

President, . .	Dr. H. Judd, Warsaw.
Vice-President, . .	A. Spitler, Carthage.
Treasurer, . . .	Chas. Hay, Warsaw.
Secretary, . .	Geo. W. Hall, Carthage.

Delegates to the American Medical Association—David Ellis, M.D., W. M. King, M.D., and Geo. W. Hall, M.D.

Delegates to State Medical Society—H. Judd, M.D., and S. L. Comer, M.D.

On motion, the Secretary was directed to prepare an account of the meeting of the Association, for publication in the Chicago Medical Journal.

The Association adjourned to meet in Carthage, the third Wednesday in July. GEO. W. HALL, Secretary.

LITHOTOMY.

This operation was performed by Dr. Brainard, on the 10th of May, on a boy three years old, who is at the present time quite recovered. This is the sixteenth operation of Dr. Brainard, and as yet no accident has occurred in any one of them. This small number of cases indicates the great infrequency of urinary calculus in this region, as compared with other States, and particularly Kentucky. The operation preferred is the lateral, or if the stone be very large, the bi-lateral—the neck of the bladder being distended with the bistoury. P.

We see it stated, in the Press and Tribune of this city, that the new rooms for the medical department of the Lind University, are being put in order. They are to be in the upper story of Mr. Lind's warehouse, on the south branch of the Chicago River.

CORRECTION.—The Boston Medical and Surgical Journal, in a notice of our article on chronic hydrocephalus, speaks of Dr. Tournesko's case as the first. This is an error. Our own case preceded that of Dr. Tournesko five years.

Prof. John H. Rauch has resigned the chair of Materia Medica, in Rush Medical College.

EXCISED KNEES.

A most curious and novel sight occurred the other night, at the London Medical Society, which took my fancy very much. Mr. P. C. Price, a young surgeon of great promise, a protege of my friend Mr. Ferguson, and who has at the same time performed most of the capital operations, read a paper on some of the causes of failure following the operation of excision of the knee joint, in which he most ably considered the subject, and very satisfactorily showed that the want of a successful issue depended upon circumstances which might have occurred had amputation been performed. At the conclusion of his paper, some ten or more male and female persons walked into the room, each of whom had undergone resection of one of their knees, and who were living proofs of the value of a limb without a joint. One lad could walk his 14 miles a day, without inconvenience or fatigue—all were in excellent health. The sight was rather amusing too, for both males and females had their knees exposed whilst walking up and down to show their anarthrodial agility. Mr. Price is engaged in the preparation of a treatise on excision of the knee, which will be copiously illustrated, and at the same time will contain an account of every operation that has been done, up to the year 1858.—*Montreal Chronicle.*

THE CHICAGO

MEDICAL JOURNAL.

VOL. II. JULY, 1859. No. 7.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

CASE OF CONGENITAL ABSENCE OF THE VAGINA, WITH THE UTERUS IN A RUDIMENTARY STATE, IN WHICH AN OPERATION WAS PERFORMED; WITH REFLECTIONS ON THE OPERATIONS PERFORMED FOR ABSENCE OR OBLITERATION OF THE VAGINA.

BY DANIEL BRAINARD, M.D., PROF. OF SURGERY IN RUSH MEDICAL COLLEGE.

The vagina and uterus are subject to every conceivable degree of imperfection from simple narrowing or occlusion from adhesion of the walls to entire absence of one or both these parts.

A systematic classification of these anomalies would range them as follows:

1.—Congenital.

a. Imperforation of the vagina from adhesion, or from closure of the hymen.

b. Absence of the vagina throughout its whole extent.

c. Absence of the vagina and uterus.

d. Absence of the uterus with the existence of the vagina.

2.—Accidental.

a. Closure of the vagina from adhesions or sloughing (partial).

b. The same (complete).

Imperforation of the hymen, or simple adhesion of the sides

of the vagina at the external orifice, is an accident of so simple a character, so easily remedied, and of such frequent occurrence, as not to require a lengthened notice. Separating the adhesions by pressure with the fingers or with a blunt instrument, or puncturing the hymen with a bistoury, if necessary, is the treatment demanded. This should be done as soon as the defect is discovered. This precept now generally approved is important for two reasons: because leaving it to obstruct the menstrual flow is dangerous to the health and even to life; and because this closure is often the cause of imperfect development or delay in development of the sexual organs.

This occlusion, and the operation for its relief, were perfectly well known to the earlier writers, and even to the ancients. The fullest account we have of the whole subject is in Morgagni and Aristotle: Hippocrates and Galen were well acquainted with it. It is said that Cornelia, mother of the Gracchi, was affected in this way. It is not, however, to be supposed that the operation of puncture is entirely free from danger. Cases of death from this cause are on record, and will be cited further on, but this seems rather from the effect of distention from retained menses than from the wound itself.

Partial or perfect closure of the vagina or of the os uteri, occurring during pregnancy, so as to obstruct the passage of the child's head, is also an accident so well understood as not to require much comment. All obstetricians agree that in these cases the cicatrices should be incised early, in order to avoid delay and danger of rupture of the uterus. M. Lombard, of Geneva, reported to the Academy of Medicine a case in which the canal of the vagina had been obliterated by injection of sulphuric acid, employed for the purpose of producing abortion. Although incisions were made in this case, they were insufficient, and the patient died after the Cæsarian section had been performed.

I have myself had knowledge of a similar case, in which a piece of whalebone was employed to procure abortion. A firm cicatrix was the result, which, not being recognized by the medical attendant in labor, rupture of the uterus and death resulted.

There is reason to believe that cases of occlusion of the uterus occasionally met with in labor, and of which no explanation is found, are due to attempts to procure abortion.

Accidental obliteration of the vagina.—This accident occurs from pressure of the child's head during labor, improper use of instruments, syphilitic ulcerations, the use of caustic injections, erysipelas following measles or scarlatina, and sometimes without any known cause. I have treated a case in which the inflammation was caused by a disproportion of development of the sexual organs of the male and female. Although the woman in this case was nineteen years of age, the organs were imperfectly developed like those of a girl of fourteen.

Adhesions might, no doubt, be prevented by proper care were danger apprehended, but most frequently it is the impossibility of sexual connection, or the pain occasioned by retention of the menses, which first suggests the necessity of the examination which detects the nature of the difficulty. When the menses return they are accompanied by great pain, which increases at each succeeding period until at length it becomes constant. It is like labor pain, and unless rupture and discharge of the menstrual blood into some internal cavity, or into a passage opening externally should occur, causing death or giving relief, the patient dies, exhausted as in long protracted labor. It is said that the blood sometimes finds its way into the peritoneum, through the Fallopian tube, and thus causes death.

Treatment.—The treatment of obliteration of the vagina throughout the whole length is not unattended with difficulty and danger. As the same rules of practice are applicable here as in cases of congenital absence of the vagina with the presence of the uterus, both these cases will be considered together. And in the first place it may, I think, be laid down as a rule that absence or obliteration of the vagina *in unmarried women*, where the menstrual flux does not take place into the uterus, does not require or justify any attempt at operation. It should, whenever its existence is ascertained, be considered an inseparable bar to the contracting matrimonial relations. But when the menstrual fluid is poured into the uterus, symptoms so severe and dangerous are produced as to call in the most urgent manner

for an operation. Nor are the reasons which call for the formation of an artificial passage in the married female, in whom no symptoms of the menstrual periods occur, much less urgent. Life is not in danger, but it is without value, as the subjects of the malformation or accident are not only subject to be divorced, but are deprived of the sympathy to which they are entitled, and subjected to the contempt of persons of their own class, who often suppose them to be hermaphrodites.

The operation generally resorted to in these cases consists in making an opening in the natural course of the vagina, and puncturing the uterus in case the os uteri cannot be found. For this purpose a sound should be passed into the bladder and held by an assistant, the index finger of the left hand passed into the rectum. The separation of the membranes of the two organs should be effected as far as possible with the fingers of the right hand, and the scalpel only resorted to when bands are met with which cannot be otherwise overcome. If an incision into the uterus is required, it should be to the extent of three-fourths of a circle, an inch in diameter. This, if kept open for a time with a bougie, has no tendency to close. The bougie or catheter inserted in such cases should be wound below the point with oil silk or india rubber cloth, so as to constitute a sort of pessary an inch or more in diameter, to prevent the closure of the passage. This operation is most conveniently done with the patient in the same position as required for the lateral operation of lithotomy. The probability of being able to establish a communication with the uterus is much greater when that organ is distended by the menstrual fluid than when in a state of vacuity; it is therefore advisable to wait in most cases until the enlargement is ascertained by examination.

The operation, I have said, is not without difficulty and danger. The difficulty results from the liability to lay open the bladder, rectum or peritoneum, or from the impossibility of reaching the os uteri; the danger from the effects of these accidents and from peritonitis, even when no accident has occurred during the operation. The liability to this is so great that many eminent surgeons do not consider the operation as advisable, and recommend puncture through the rectum instead.

Vidal, "Traite de Pathologie Externe," vol. v, p. 618, says: "I have seen this operation performed three times, and each time death has resulted more or less promptly." This he attributes to the passage of air into the uterus, and recommends precautions to prevent it. Mr. Cæsar Hawkins has seen death by peritoneal inflammation result from the puncture of an imperforate hymen, and from puncture of the bladder in another case. DeHaen, in an operation of the kind, opened the bladder, and his patient died. A case is reported in the *Gazette Medicale*, for 1846, p. 57, in which the obstruction seems not to have been perfect, in which a vesico-vaginal fistula is said to have resulted from the operation. Stein and Busch opened the peritoneum, and in consequence their patients died. M. Capuron communicated to the Academy of Medicine a case in which the uterus was punctured from the perineum with a trochar, but permanent relief was not obtained, and the patient died at the end of ten months. Morgagni relates a case in which, after death, the bladder was found to have been opened; but in this instance one of the Fallopian tubes had burst, and discharged its blood into the peritoneum. In a case operated by M. Morrison, an abscess formed in the iliac fossa. A patient of M. Langenbeck died from peritonitis. Dupuytren is said to have frequently seen accidents of an extremely dangerous character result from the operation (Velpeau, Operative Surgery, vol. iii, p. 788, No. 7 edition). In a consultation in M. Amussat's case, Boyer, Marjolin and Magendie advised against any operation. Sir Astley Cooper is said to have cut through two inches of obliterated vagina without finding the os uteri. Mr. Worthington lost his patient, although the occlusion was but half an inch in thickness.

On the other hand, the instances of successful results are so numerous as at the present time to greatly overbalance the unfavorable ones. Among the most noted of these is one reported to the Academy of Sciences in 1832, by M. Amussat, in which an operation was performed on a girl of fifteen years of age for a congenital absence of the vagina. There was retention of the menses. The operation was entirely successful, and the report should be consulted by any one desirous of in-

formation on the subject. M. Flamant, of Strasburg, performed a successful operation of the kind. Indeed, successful operations are now so numerous that they cannot all be enumerated. Messrs. Bal, Kluyskens, Gendron, Willhaume, Roux, Nelaton, Mussy (two cases), Mott (said to have operated on a "considerable number"), Harvey de Chegein, DeHaen, Dr. J. M. Warren (four cases), Ventura, Cabaret, Delpech, Desgranges, Renauldin, Keates, Jefferson, Coste, Rossi, Toulmouche, Hayward (two). Reports of these have fallen under my notice, besides many others, in which the occlusion not being complete, they do not come within the scope of this paper.

I have myself met with four cases of accidental obliteration of the vagina. In one already alluded to, the cause was violence from a piece of whalebone used to cause abortion. This resulted in rupture of the uterus and death during labor. Another was caused by the use of instruments in labor, and the entire obliteration of the vagina was accompanied by a vesical fistula. As the menses had not returned, I advised no operation until the uterus should be moderately distended with blood.

The third case was that of Mrs. D., of Wisconsin, a partial report of which was published in the *American Journal of the Medical Sciences*, for October, 1853, p. 365. The exciting cause in this instance seemed to be violence done in sexual connection, an example of which is also furnished in a case of Dr. J. M. Warren. The inflammation was violent; the sloughing extensive; and the closure perfect, both of the entire vagina and of the os uteri. The result of the operation in this was, I think, more favorable than that in any similar case of which I have knowledge. I refer to the greater capacity of the artificial vagina, preserved by keeping for a long time within it a sort of pessary, made with pieces of sponge placed around a piece of wood, and covered with oil silk. Four years after the operation, sexual contact was effected without any perceptible obstruction.

In the fourth case, reported in part with the last, the cause was instrumental labor. The result of the operation was perfectly satisfactory; the menses occurred without difficulty, but the details are not so well known to me.

If any doubt concerning the urgent necessity of an operation

in these cases can still be entertained, it will be removed by a glance at a case left to itself.

Dr. J. B. S. Jackson, in 1850, presented to the Boston Society for Medical Improvement a uterus and Fallopian tubes distended with menstrual fluid. The subject, a female of twenty-five years of age, was, in other respects, well formed, but the vagina was wanting. On the discovery of this defect, a consultation of professed surgeons was called, who decided against any operation.

Difficult and dangerous as are these cases of accidental destruction of the vagina, they are not the most perplexing or the most hopeless of the imperfections we are called upon to treat. Cases of absence of the vagina and uterus, or in which these organs exist in a rudimentary state, but in which the breasts and external organs are developed, with all the feminine characteristics, occasionally present themselves under circumstances which appeal strongly to the surgeon for some attempt at relief; and there are some cases on record in which operations have been performed for these malformations, with a certain degree of advantage. Thus Langenbeck, as quoted by Velpeau, succeeded in rendering the vagina permeable in a case in which the uterus was wanting. Dupuytren dissected three inches into the tissue, beyond the extremity of an imperfectly formed vagina, without reaching any uterus. Dr. John Watson, about the year 1844, met with a case in which the uterus was imperfectly developed, and the vagina entirely wanting. There were no signs of menstruation. Nevertheless, Dr. Watson operated by incision, and found the os uteri. The patient recovered, but there was no menstruation, and the opening made contracted to a small size—(*N. Y. Journal of Medicine*, for 1844). It is probable that if a properly shaped pessary had been retained for several months in the passage, or if the patient had been so placed as to have frequent sexual connection, that this contraction of the passage would not have taken place. Dr. E. P. Bennett, of Danbury, Conn., met with a case in which the vagina terminated in a *cul de sac*. Attempts to find the uterus by incision were made without success. Sir Astley Cooper is said to have cut through two inches of cicatrix without being

able to find the os uteri. Dr. McFarlane performed a similar operation, but his patient died from peritonitis.

I admit that in case of an unmarried woman, if a surgeon were consulted he should advise against matrimony, and, perhaps, against the performance of any operation. But where a woman has ignorantly entered into the married state and desires an operation, the case assumes a different aspect. The motives which require it are as important to her as if her life were involved; and the question is, whether an artificial vagina, which will be a substitute for a natural one, can be formed without very great danger? To this question an affirmative answer may be given. An artificial vagina is more readily formed in congenital absence than after accidental obliteration. In the latter case, the labia and nymphae are found retracted and diminished in size, from being drawn inward by the contraction of the cicatrix; while in the former, if the sides of the newly formed passage are prevented from coalescing, the mucous tissue of the labia and nymphae, as cicatrization progresses, is drawn inward, expands and developes itself so as to form the walls of the new passage. The mechanism of this has been fully dwelt upon by M. Amussat in the paper already quoted.

Operations for the formation of artificial vaginæ succeed better than *a priori*, we would have reason to expect. The proposition to make an artificial passage in the living tissues in any other part of the body, and to keep it pervious by the presence of a foreign body, would hardly be entertained. But in the case of the vagina, that tendency of the organ to develope itself, which is so marked at puberty, exists for a long time, and is, in my opinion, stimulated into activity by the presence of a foreign body. Certain it is that in two cases the success of the operations which I have performed, with some degree of reluctance, was beyond what I anticipated.

It is not improbable that a simple adhesion of the sides of the orifice of the vagina, at an early period of intra-uterine life, may be the cause of arrest of developement, as we know that adhesion of the prepuce to the glans penis prevents the full developement of the male organs.

It has been noticed too that puncturing the imperforate hymen

in young girls gives rise to a temporary sexual feeling of a precocious and somewhat hysterical character.

Without insisting too much upon views which may be regarded as theoretical, I will only premise further that absence of the vagina and uterus is a malformation by no means excessively rare, and therefore important in a practical sense, from its medico-legal as well as from its surgical bearings.

Cases of absence of the uterus, or in which it existed in so imperfect a state as not to be detected by the touch, have been reported by Morgagni (three), Columbus, Fromondus, Haller, Cailliot and Richerand, La Metrie, Baudeloque, Lieutaud, Bosquet, Theden, Rault, Burggrave (who reports two), Bertani, Ramsbottam, Quain, Flamant, Lombard, Boechm, E. P. Bennett, A. Boyd (two), Breschet, Wehr, Seguin, the late S. G. Crawford, of Joliet, Ziehl, Engle, Stein, Madame Chappel, Madame Boivin and Duges, Chew and Murphy.

In the article—"Cas Rares," in the *Dict. Des Sciences Medicales*, by Fournier, published in 1813, it is stated that there existed at that time but one case on record of absence of the uterus. Considering the pains the author had taken to collect together strange occurrences vouched for by doubtful authorities, it is singular that he should have overlooked the four cases related and referred to by Morgagni, in two of which the bodies were dissected, and in the other two the termination of the vagina in *cul de sac* and other appearances, justified him in believing the uterus was absent. It may be stated, however, that in several —perhaps half of the cases above cited—the absence was not proven by dissection, and that the uterus may have existed in a rudimentary state, as was found in a fifth case reported by Morgagni.

In the cases in which the absence of the uterus was not demonstrated by dissection, the conclusion was arrived at by the vagina being either absent or imperfect, terminating in a *cul de sac*, by an examination with a sound in the bladder and the finger in the rectum, by absence of the menses and of all symptoms of their retention.

There was, in nearly all the cases, development of the breasts, of the external organs, sexual desires, and symptoms indicating

a tendency to menstruation. These, except the last, depend entirely upon the ovaria, and disappear with their disease or removal.*

Case.—On the 8th of November, 1856, I was consulted by Mrs. D. on account of some difficulty of the genital organs, which prevented sexual connection. Mrs. D. is twenty-three years of age; has been married one year, but separated from her husband on account of the difficulty for which she consulted me; is well formed, with the breasts and external organs of generation as much developed as is usual, and admits that she has the natural sexual desires. On attempting to pass the finger into the vagina, it was arrested immediately behind the orifice. On ocular examination, there is perceived a small *cul de sac*, the membrane on the surface of which lies in folds. On passing a sound into the bladder and the finger into the rectum, the septum between these organs was found thick. On careful and repeated attempts, however, a probe was passed from the orifice of the vagina, and between the bladder and rectum, a distance of two and a half inches, without using violence. Beyond this, and as far as the finger could reach, a small body was felt which seemed to be the uterus, of the size of that of a child of five years of age, and bent with the inflexion backward.

The orifice of the urethra bore marks of violence, which, I afterwards learned, had been produced by the forcible introduction of the finger by the patient herself; and I also ascertained that in her anxiety to restore the natural passage, she had thrust into the vagina, or its natural situation, pieces of whalebone, some of which had apparently entered the rectum, as a discharge of blood from that organ followed. I do not, however, think that the canal which the probe followed was formed in this manner, as the wound was entirely healed while this canal persisted.

This woman and her mother denied having had any knowledge or suspicion of the existence of this obstruction before marriage. She had never had any attack of inflammation of the organs. At times she had the usual symptoms attendant on menstruation,

* See Bowen and Dayes, Maladies de Uterus, Potts' Surgery, etc.

but not with regularity, although she had sometimes had discharges of blood from the rectum.

By repeated and careful examinations per rectum and on the surface of the abdomen, no tumor of any kind could be detected. I therefore came to the conclusion that it was a case of absence of the uterus and vagina, or one in which these organs existed in a state of very imperfect development.

The important question to the patient was the possibility of performing any operation with advantage. At first I advised against any attempt of the kind, but after consulting several eminent colleagues, and particularly Dr. John Evans, formerly professor of obstetrics in the medical college at Chicago, I was induced to attempt a dilatation of the small canal already spoken of. This was done at first with a grooved director, upon which a metallic director was passed. The patient was unable to bear the pain produced by these instruments if of considerable size, and this plan was abandoned.

Bearing in mind the favorable result of my operations for obliterated vagina, and having in this case a guide which obviated the danger of wounding the bladder or the rectum, I determined to enlarge the canal by incision. This was done, Dec. 27, 1856, with the assistance of Drs. Evans, Isham and Nutt, as follows:

The incisions were made laterally, and the tissues separated as much as possible by the finger. The small body which I took for an embryo uterus was reached. It had, however, no cavity, and the operation was finished by passing into the opening a small rod surrounded by turns of india rubber tissue until it was one inch in diameter.

The operation was not extremely severe; the patient being under the influence of chloroform suffered no pain. The hemorrhage was not great. A full dose of morphine was administered.

Considerable reaction occurred during the first week, the bladder particularly suffering from inflammation. Under appropriate treatment these symptoms subsided. The most painful part of the treatment was putting in and taking out the pessary, which was therefore done at as long intervals as possible.

At the end of about a month the patient returned home, with

the direction to wear the pessary constantly for some months, and then to commence leaving it out a few hours at a time.

At the end of fourteen months—viz.: in March, 1858—the patient returned. She had been in good health, able to do the work of the house most of the time. She had continued to wear the pessary most of the time, taking it out and replacing it herself as occasion required.

At this time she was examined by Dr. Byford. We found the artificial vagina sufficiently long to admit the index finger its whole length, and broad enough to allow of free lateral movement. The surface was soft and flexible, and did not appear to secrete pus. The body which I have taken for a uterus was not perceived by this examination, and no examination *per rectum* was made. Dr. Byford and myself were of the opinion that copulation might be perfectly effected, and that even a skillful surgeon, in making an examination at this time, would not suspect the degree of imperfection which had formerly existed.

In May, 1859, two years and four months after the operation, the patient was examined by several physicians in Wisconsin, who report her condition the same as when she was last examined by Dr. Byford and myself.

In so far as a single case may be taken as a guide, this seems to indicate the propriety of an operation when the vagina and uterus are both in a rudimentary state, a condition hitherto generally believed to be beyond the resources of art.

ARTICLE II.

STOMATITIS MATERNI.

BY DAVID PRINCE, M.D.

JACKSONVILLE, ILL., May 24th, 1859.

DR. BRAINARD:

DEAR SIR,—I have been much interested in reading the article on Nursing Sore Mouth, by Dr. T. J. W. Pray, of Dover, N. H., published in the May number of the *Chicago Medical*

Journal. Allow me to contribute a short note as mere hints or suggestions.

Dr. Pray thinks the disease to be aphthæ, and says (page 307): "We regard this disease as local in its nature."

Turning to Hooper's Medical Dictionary, which happened to be lying upon my table, I find aphthæ defined a disease which appears in small white ulcers upon the tongue, gums, and around the mouth and palate, resembling small particles of curdled milk. Turning to Watson's Practice (page 482, American edition, 1847): "Aphthæ consist in small, irregular, but usually roundish, white specks or patches, scattered over the tongue and the lining membrane of the mouth and fauces, the angles of the lips," etc. "They look like little drops of tallow or morsels of curd sprinkled over those parts; they project a little above the surrounding surfaces, and, in fact, they are mostly formed by elevated portions of the mucous epidermis, covering a small quantity of sordes or gelatinous fluid which separates epidermis from the subjacent corium." This portraiture is very distinct and true to life. Any one who has seen a sore mouth in an infant must recognize the truth of the description at once. In this region the women usually call the disease *kanker*.

Nursing sore mouth is endemic in and around Jacksonville, and I have frequently seen and treated it; but I have never seen it as aphthæ, according to the definitions of Hooper and Watson, just quoted. As it has fallen under my observation, the predominant characteristic is *ulceration*. Any occurrence of vesicles is so insignificant as not to attract attention. The general surface of the tongue and mouth is a little darker than usual, and the woman who has ever before had the disease, recognizes its approach before any ulceration can be discovered. When the disease proceeds unchecked, these ulcers assume various forms,—sound, ragged and cracked, or fissured. There is never a white crust which is made a part of the definition of aphthæ. The feeble are more often afflicted, but no condition of health seems to produce an exemption.

The treatment in this region among the physicians with whom I am acquainted, has come to be a settled and sure thing. It is very rarely the case that a nursing mother is required to wean

her child on account of this affection, unless it has become obstinate by neglect, and the general health reduced by its irritation, and the attendant inability to take nourishment.

The favorite remedy is iodide of iron. The liquor ferri iodidi of the U. S. P. is combined with an equal quantity of compound syrup of sarsaparilla, for the more agreeable taste, and of this a common-sized teaspoonful is directed to be taken three times a day. In nine cases out of ten this cures, whether before or after delivery. (The disease is an attendant of pregnancy as well as of lactation.)

The next remedy in favor is the chlorate of potash. A saturated solution is made, and it is used both as a local application and an internal remedy. A tablespoonful of the solution may be held in the mouth for a few seconds and then swallowed, or if only a local application is intended, it can be thrown out of the mouth. This may be done from three to twelve times a day.

These two remedies may be used singly or in combination.

To make the matter short, the disease does *not* correspond with the definition of aphthæ, and therefore should not be called by that name; and it cannot be a mere *local* disease, or it would not be so readily controlled by an internal remedy, as in the use of iodide of iron. Respectfully yours,

DAVID PRINCE.

ARTICLE III.

SUCCESSFUL CASE OF RESECTION OF THE KNEE JOINT.

BY J. W. FREER, PROF. OF ANATOMY IN RUSH MEDICAL COLLEGE, ONE OF THE SURGEONS TO MERCY HOSPITAL, ETC.

Case.—Mrs. Nichols, aged 30 years, of healthy appearance and good constitution, came under my notice in the spring of 1858, for disease of the right knee joint, which, according to the patient, was of two years' duration.

History.—The patient was not aware of ever having received an injury to the member. She related that the first indication of disease was slight pain and swelling in front and lower part

of the joint. This rapidly increased, and in the course of a year a fistulous opening was established, communicating with the articular cavity. She had always managed to go about by the aid of crutches.

Present appearance.—Joint enormously swollen, partly from pressure of fluid within the articular cavity, as well as from the œdema without. Spontaneous dislocation of the leg outward, with semiflexion and anchylosis in front and below. A depressed cicatrix, making the situation of the former fistulous opening. The skin of natural color and temperature.

Local symptoms.—Severe pain on attempting to move the joint; no tenderness with moderate pressure; subject to paroxysms of severe pain while in the quiet condition, especially at night. The general health good.

In the month of August, 1858, the patient entered Mercy Hospital for treatment, although she did not come under my care until February, 1859, having in the mean time been under treatment by Dr. N. S. Davis, the result of which was a great diminution of the fluid in the articular cavity, although the limb remained the same in regard to immobility and deformity of the joint, as well as painfulness which had not appreciably diminished.

Believing it to be a suitable case for resection, and having carefully described the operation to the patient, with its possible and probable results, her assent was readily given; and on the 10th of February, in the presence of Drs. Powell, Hunt, Andrews and others, the operation was performed in the following manner:

Operation.—The patient being placed fully under the influence of chloroform, and placed in proper position, an incision was made, in outline like a horse shoe. The lesser portion corresponding with the tibia, an inch below the lesser tuberosity, the open sides with the pastero-lateral portion of the joint. The flap being dissected up, the ligamentum patello and lateral ligaments severed, the extremities of the bones were readily exposed by forcible flexion. Having removed the patella and carefully dissected away the soft parts from the bones to the required extent, excision was readily completed with the ampu-

tating-saw, section being made in the direction from before backward, the soft parts protected from the saw by inserting a strip of pasteboard. Two and a half inches of femur and one inch of the tabia were removed. Very slight hemorrhage ensued; two or three articular branches required the ligature. The wound was closed by interrupted suture, and the limb placed in a straight carved splint and foot board, with a long side splint attached firmly to the pelvis and foot.

Morbid Anatomy.—Articular cavity occupied with a small quantity of yellow cheese-like substance; synovial membrane much thickened and gelatinous in appearance; articular surfaces entirely denuded of cartilage, and presenting here and there ivory-like patches; portions were deeply excavated, as the inner condyle and glenoid surfaces of the tibia; cancellated stricture occupied with a yellow consistent substance, like strumous deposit; crucial ligaments, degenerated and scarcely recognizable; inner surface of patella denuded and carious.

The subsequent treatment was of the simplest character. No medicine was required after the first dose of morphine, at the time of the operation; no pain ensued of sufficient severity to indicate anodynes. During the three months of the patient's confinement, her appetite was uniformly good, and bodily functions regular. The wound, with the exception of two or three fistulous openings, healed by first intention. At the expiration of three months, the limb was dressed with pasteboard splints and paste bandages, and the patient permitted to go about on crutches.

Present condition.—At this time, 10th of June, about four months since the operation, we find the following condition: The discharge has entirely ceased; union has taken place, which is of sufficient firmness to maintain the immobility of the part, when the paste bandage is removed and the limb supported by the foot, or the patient directed to elevate the member without support. The shortening does not exceed two and a half inches. The limb is still sustained with the original pasteboard splints and paste bandage; a longitudinal division having been made in order to allow of its removal at any time, for the purpose of cleanliness or other convenience. Such being the present con-

dition, we feel warranted in predicting a highly useful member in the future.

When the case has fully matured, we propose to give the final result.

EXTRACTS.

ON THE PHYSIOLOGICAL POSITION OF FIBRIN.

BY LEVIN S. JOYNES, M.D., PROFESSOR OF INSTITUTES OF MEDICINE IN THE MEDICAL COLLEGE OF VIRGINIA.

[From the *Virginia Medical Journal.*]

We can hardly do justice to this very able article in the brief extracts our space permits us to make from it, and yet it contains too much of interest to allow us to pass it by unnoticed.

Prof. Joynes gives a very just statement of the theory held by some late physiologists, viz: "that fibrin, so far from being a peculiarly organizable or plastic material, and the immediate pabulum of the most highly vitalized tissues, is, in reality, an *excrementitious compound*, not at all available for nutrition, and to be reckoned among those elements which have arisen in the blood from its own decay, or have reverted to it from the waste of the tissues, and are in process of elimination from the system."

Prof. Joynes adheres to the older theory, until recently held by all physiologists, which considers fibrin to be a most important element for the nutrition, formation and repair of the tissues; and sustains his opinion by the following arguments:

1*st.* "Fibrin is a constituent of the chyle. Evident indications of it are found in the fluid drawn from lacteals of an animal in full digestion, at their very issue from the intestine; but its quantity progressively increases by the transformation of albumen, as the chyle moves along the vessels towards the thoracic duct, and through it into the venous system; and a further increase takes place as the blood passes from the venous to the arterial side of the circulation. We may affirm, therefore, that the *proportion of fibrin increases as the products of digestion approach the points where materials are needed for the nutrition of tissue;* and we may ask if fibrin be an excrementitious product, why should it appear *in the chyle* directly after its absorption? We cannot account for its presence here by the waste of tissue, nor can we reasonably suppose the occurrence

of a "retrograde metamorphosis" a destructive change in the products of digestion as soon as they are absorbed.

2*nd*. "Fibrin is normally found only in the *nutritive fluids* of the economy—the blood, chyle and lymph. It is not a constituent of any *excretion*, as are all those constituents of the blood which are admitted to be excrementitious,—such as carbonic acid, urea, uric acid, creatine, etc.

3*d*. "Fibrin is nature's agent for the *arrest of hemorrhage*. When vessels are divided, the coagulation of the blood is the means by which their occlusion is mainly effected, and the flow permanently arrested. If the blood contained no fibrin, and were therefore not coagulable, hemorrhage, even from the lightest wound, could never be arrested by the efforts of nature. But for the same protective property every separation of a gangrenous part would be attended with bleeding. Effusion of fibrin is also the means by which suppuration is circumscribed, and prevented from assuming that diffuse character which is sometimes so destructive. In these several particulars, fibrin performs offices which are singularly *conservative*. Can we say as much for any of these products of wear and tear which constitute the true offal of the system? It has been aptly remarked that the organism *bears an increase of fibrin better than a diminution*. Witness the comparative gravity of sthenic inflammation and the severer grades of typhoid fever. Not so with any organic compound of the excrementitous class. The accumulation of these in the blood is the signal of urgent peril.

4*th*. "Is it mere fancy that sees in the *spontaneous coagulation* of fibrin, and the definite position which its particles usually assume in solidifying, the indication of a special tendency to organization? And is it unwarrantable to argue therefrom the possession of a certain degree of *vitality?* All attempts to ascribe this coagulation to the operation of mere chemical or physical influences have failed. It is a change which fibrin always undergoes of its own accord, when not kept *moving in contact* with living parts, whatever be the external condition in other respects. Whenever, in the course of the circulation, the plasma of the blood is effused from the capillaries in the midst of the tissues for their nutrition, the fibrin being now *at rest*, is free to pass into the solid state, and enter into combination with the tissue or tissues of which it is the appropriate food. We have no just ground for affirming that fibrin is the only immediate tissue-forming ingredient of the blood; that albumen, for example, which abounds there, must pass through the form of fibrin before combining with any living structure. The probabilities are all against such an exclusive view. But that fibrin

is a *specially and eminently organizable or histogenetic* material, this, I am convinced, is a truth which cannot be successfully controverted."

The whole article will abundantly repay perusal.

AMERICAN MEDICAL ASSOCIATION.

The American Medical Association met in Louisville, Kentucky, on the third of May, but we find the proceedings so utterly devoid of interest, that we think it would be a waste of our space to occupy it by their full publication.

The truth is now palpable—and it is one which we long since announced—that the Association will soon lose all hold upon the interest, respect and confidence of the mass of the profession, unless the question of medical education is entirely excluded from it. It is a question with which the Association has nothing to do, and over which it cannot possibly exercise any control. Besides, the mass of the profession have really never had anything to do with the *agitation* upon this subject; and so far as the South is concerned as a body, feel no special interest in it. We propose to pass in review at some future period, this whole subject, and present, in bold relief, the demagogues and tricksters, whose selfishness and underground intrigues would better become corrupt politicians, than the professed devotees of a noble science, directed to the highest conceivable earthly objects. The wisest proposition, in our judgment, ever submitted to the American Medical Association, and the one fraught with the most good to the permanent prosperity and continued usefulness of that body, was presented at the meeting in Nashville, viz: To ignore the whole subject of Medical Education, so far at least as any attempt at the exercise of a controlling power, either directly or indirectly, was concerned.

At this same meeting, however, was inaugurated the *present* movement upon this subject; the offspring of envy, jealousy and contemptible personal motives, which is completely absorbing, and displacing what should be the great objects of the Association, the advancement of science and the promotion of harmony in the profession.

We publish below a most sensible and appropriate article from a Louisville paper, in reference to the Association and its objects, past and prospective. The article was evidently written by a medical man, and one who had closely observed the present aspect of medical affairs, as connected with the Association, and its relations to other medical bodies and the profession generally.

National Medical Association.—The assembling of delegates from nearly all the organized medical societies and medical colleges in the United States is an occasion of interest not only to physicians but to the public.

Every reflecting mind is naturally led to ask what are the objects of a gathering, involving so much time, trouble and expense to those directly interested; and every intelligent physician is likely to inquire how far these meetings have been beneficial in their influence upon the profession. The present is the twelfth meeting of this association, and its value as a means of improvement ought therefore at the present time to be well understood.

The objects for which it was organized were the formation of a code of medical ethics, fixing a higher and uniform standard of medical education in the various medical schools, the promotion of medical science, and the interests of the profession in general. In regard to the first of these objects, it may be truly said that the action of the Association has been eminently successful. The code promulgated cannot fail to be of service. It embodies, in concise and simple terms, those cardinal rules of conduct which the medical fraternity of every country have uniformly acknowledged as just and wise. Thus far the task was easy.

With reference to the second of these points, the same assertion cannot by any means be maintained. While it is undeniable that the lapse of twelve years has witnessed some improvements in the methods of teaching, it must still be admitted that the requirements for graduation remain essentially the same as they were before. Public opinion may be somewhat more enlightened. Medical schools and medical journals are more numerous, but these changes, whether improvements or not, are hardly traceable to the action of the National Association.

When the cause of failure in a point so important is sought, it may be found in part in the fact that the Association is not clothed with any legal power over the subject. Reports, speeches and resolutions without number have been made, but they have not received the force of law, many of them not even the sanction of public opinion. It may also in part be attributed to the fact that the objects sought were to some extent undesirable or unattainable. Uniformity could scarcely be desired or expected when the circumstances were entirely different.—One school might have six professors and another eight; one might lecture sixteen weeks, another five months, yet both be eminently useful in their respective spheres, and each adapted to the means and wants of different classes of students. On this point it may not

be deemed amiss to suggest that, since the Association is not clothed with any legal authority; since discussion of the subject has awakened jealousies between different schools, as well as between the schools as a class, and the medical societies; since much time is consumed which is valuable for other purposes; since the colleges are jealous and justly so of their chartered rights,—little good can be expected from too urgent demands for action when action is of no avail.

In regard to promotion of medical improvement, a more favorable view of the past and more hopeful view of the future may be indulged. In promoting friendly and scientific intercourse among its members, by encouraging the production of essays by the offer of prizes and otherwise, the Association has done much good; and if it be alleged that much unworthy of its national character has been published under its sanction, that incompetent individuals may sometimes have been clothed with its influence as chairman of its committees, these, it will be admitted, are minor and transient evils, which by no means counterbalance the benefits it has conferred.

But the question may now be fairly put whether the experience of twelve years has not suggested improvements in the method of conducting its business calculated to increase its efficiency and to obviate the evils complained of. It would be strange if it were not so.

A citizen of Louisville who may be led by curiosity to attend its sessions to-day as a spectator, will be surprised (unless this should be different from former meetings) to find that these gentlemen brought together from distant States for mutual improvement, scarcely discuss the subjects which relate to the cure of diseases or discoveries of science. On the contrary, they sit quietly by, while a few of their number debate systems of education as if they were members of a legislative body, and propose amendments to the constitution, and discuss them with as much gravity, as if it were the Constitution of the United States.

He will be still more surprised to learn that scientific reports, prize essays, etc., the contents of which may concern the members personally, are for the most part not read except by title, but are passed to the committee on publication and that the members separate in ignorance to a great degree of what is to be printed with their sanction (in a manner), and in total ignorance of the views of their colleagues on important and undecided points of medical and surgical practice.

The course of this Association is in this respect different from that of almost every similar body. The American Association

for the Advancement of Science is divided into sections, to each of which appropriate subjects are assigned. These are discussed, papers read and reports amended. The advantages of this plan are obvious, it seems indeed so necessary that to propose is to commend it to attention and favor: For the purpose of this Association it is probable that the following arrangement would be as convenient as any. Let it be divided into sections:

1. Anatomy, Surgery and Physiology.
2. Practice of Medicine and Obstetrics.
3. Chemistry, Botany and Materia Medica.

Let each meet separately, read, hear, and discuss reports, essays and papers on the various branches assigned to it. A committee for each section might, after the present meeting, arrange the order of business.

Whether or not these suggestions be carried out, it is greatly to be hoped that a body composed as this is of the great and choice spirits of a learned and humane profession, a body claiming to be national in its character, acting under the eye of an enlightened public, will not forget for a moment the claims of humanity. The science is imperfect and progressive, and it ought to be expected of each member of this great council not only that he will return home better fitted than before to relieve some suffering friend, but also that he should have communicated in exchange some valuable knowledge to his colleagues. If, instead of this, men so eminent are found wasting their time in unimportant discussion, what can be thought but that rivalries, personal objects and unworthy ambition have usurped the place of humanity and the love of science. To make discoveries, to diffuse knowledge, to apply science to the cure of disease, are truly worthy and dignified objects. If true to those, the American Medical Association is assured of that honor to which it aspires, and that sympathy which is a guarantee of success.—*Atlanta Medical and Surgical Journal.*

SCARLET FEVER.

FROM AN ESSAY, BY HENRY A. CARRINGTON, M. D., HYDE PARK, DUTCHESS COUNTY, N. Y.

SECTION IX.—TREATMENT.

1. *Prophylactic.*—Several remedies have been praised as efficacious in preventing or modifying scarlet fever; the principal one, however, and the only one to which it is necessary, at

present, to draw attention, is belladonna. To Hahnemann belongs whatever of credit, or discredit, the proposition for its use may merit. Fancying he had discovered certain effects from the use of the drug, not unlike the certain symptoms of scarlet fever, and ascertaining, as he supposed, that it did cure the disease, and in other cases *prevent* it, he proclaimed to the world another triumph of the great principle, "similia similibus curantur;" asserting that he was able, not only to cure scarlet fever, but to prevent it, and thus to banish it from our systems of nosology, except it should remain as an extinct disease. From that day to this, the remedy has met with very varying fortunes, being lauded on the one part as an infallible preventive, and on the other condemned as utterly worthless. We propose to consider the matter as candidly as possible, uninfluenced by any prejudice against the dogma to which it owes its origin.

The proof on which its partisans must rely is, of necessity, of a very uncertain nature, being entirely negative. That, however, it has no just claims to any such position of universal and infallible efficacy as was claimed for it by Hahnemann is, we believe, established beyond a peradventure. But the respectable character of those who have put forward its claims entitle it a calm and dispassionate investigation; for, notwithstanding its suspicious parentage, it should only be discarded when fairly proved wanting. Here we may say, in passing, that, as in proper doses it can be productive of no harm, those who are not satisfied may safely test the matter for themselves. My own experience in the matter has been limited to a few cases; but in all the instances tried, it failed to exert any protective power, for the children, in every case, took the scarlet fever; nor could I perceive any amelioration in course of the disease.

Some authors have brought forward large statistics to prove its power; and apparently proof enough has been given to set this point at rest, but quite as many authors have brought quite as large an array of figures to prove the opposite; and on this subject we must agree with Dr. Periera, that twenty cases of failure are more conclusive against the opinion, than one thousand of non-concurrence are in favor of it. In this view, the experiments of Dr. Balfour (West. Dis. Chil.) are conclusive against its preservative virtues. He states, "that at the Royal Military Asylum at Chelsea, scarlet fever having broken out, he determined to try the virtues of belladonna. There were 151 boys of whom I had tolerably satisfactory evidence that they had not had scarlatina. I divided them into two sections, taking them alternately from the list, to prevent the imputation of selection. To the first section (76) I gave belladonna; to the second

section (75) I gave none. The result was that two in each section were attacked by the disease. The numbers were too small to justify deductions as to the prophylactic power of belladonna; but the observation is good, because it shows how apt we are to be misled by imperfect observation. Had I given the remedy to all the boys, I should probably have attributed to it the cessation of the epidemic." Very few, if any, of those who advocate the claims of the article, have proceeded in the cautious manner of Dr. Balfour, else we are confident we should have heard less of the value of a remedy whose real worth is so purely fictitious. The eccentric or capricious character of scarlet fever is not sufficiently borne in mind; for it is well known that it may, and frequently does, attack only one member of a large family of children; which exemption we refer to the capriciousness of the disease: unless, having a prejudice in favor of belladonna, we have given that, and then we are easily led to reason *post hoc*, etc.

If belladonna had any such power as is claimed for it, any just claim to a position analogous to vaccination, scarlet fever, like small pox, ought by this time to have been very much reduced, both in its frequency and mortality. That no such result has occurred need not here be demonstrated. It may be urged that it has not met with the same general acceptation; but we believe that there are very few physicians who have not at some time made use of the remedy, and who have discarded it on account of its inutility.

That it produces no efflorescence at all corresponding to the scarlatina I am well satisfied, after a sufficient experience. If it ever produces such an effect it must be owing to some idiosyncracy of the subject.

Those who wish to see a full and exhaustive discussion of this subject are referred to an article in the *Brit. and For. Med. Chir. Rev.* for January, 1855.

2. *Hygienic.*—It is important that attention be given to the hygienic conditions in which the patient is placed. The sick room ought, if possible, to be large, and at all events well ventilated. The temperature ought to be kept at a mild and uniform rate. It may be somewhat increased during the latter stages. During the fever, the diet ought to be simple gruel; indeed there is very apt to be a loathing of all solid food, so that only fluids can be given.

As regards the treatment to be pursued subsequent to desquamation, it is safest to confine the patient to the house for at least two weeks after desquamation has taken place. The diet should be mild and nutritious, attention being paid to the function

of the bowels and skin; the former being assisted by gentle cathartics, if needed; the latter by warm baths.

3. *Treatment of the eruptive stage.*—In all mild, normal cases, in which the rash comes well out, the fever is not high, and there is no disturbance of the nervous system, the treatment is reduced to its minimum. It is in such cases that it behooves the physician to remember the natural termination we have already alluded to, and to be careful that he does not stand between the patient and his just expectation of recovery. Many special modes of treatment have been vaunted from time to time; at one time it may be emetics, at another bleeding, at another purging, at another the use of some article of the materia medica; but whatever it may be, the fashion thereof soon passeth away. Scarlatina is indeed the result of a specific poison, and a specific remedy *may* be found as certain in its operation as vaccina in variola; it has yet, however, to be discovered, the pretensions of belladonna to the contrary notwithstanding.

In the commencement of the mild cases, a gentle laxative may be administered without harm; but it is not always necessary, nor to be given as a matter of course.

The warm bath is the best means of allaying the heat and dryness of the skin; some suppose that effusion has advantages over the bath; either, however, are efficacious in allaying the febrile movement if it be in excess.

The patient, on removal from the bath, should be wrapped in a blanket and kept warm till in a free perspiration. The bath can be repeated three or four times a day if deemed necessary. The pulse may be safely and effectually controlled by the use of tincture of veratrum virides, in doses of from one to three drops every two or three hours. The special power which the veratrum possesses over the pulse renders its use particularly indicated in this disease; we believe it much better adapted to the treatment of scarlet fever than antimony. It may be administered in combination with diuretics or diaphoretics, or both, so that while soothing the high arterial excitement, the kidneys and the skin may be stimulated to perform their functions.

It sometimes happens that even the milder class of simple or uncomplicated cases present febrile symptoms of great severity. For such cases bleeding has been a sovereign remedy with a great majority of the profession, and is yet with many; but the general and increasing prejudice against bleeding in general has caused many to doubt its efficacy in this disease, and, we believe, with justice. The term *inflammatory*, as applied to this stage of the complaint, has, we are confident, misled many who have

thought no farther than the name. The character of the inflammatory action and products ought to convince those who will reflect, that we have a very different type of inflammation from that of peritonitis, or pneumonia, or indeed any of the acute inflammations.

But besides this we have other less dangerous and quite as efficient means of effecting the desired object. Of these, the "wet sheet" or "packing" is one of the most certain and prompt means of arresting the fever, producing free perspiration, and allaying the nervous excitement. The patient being placed in the sheet and warmly covered, is to remain until reaction comes on, when perspiration becoming profuse, he will almost invariably fall into a quiet sleep, and awake much refreshed, with the symptoms every way mitigated. Should the fever return again, the same means may be again resorted to, not forgetting that the free perspiration is a depleting remedy of a powerful nature, and needs to be watched.

Should there be delirium, cold applications to head, sinapisms to the back of the neck and feet, and sometimes leeches to the temples, should be employed. As this delirium is for the most part sympathetic, it will subside without the use of more active measures.

The angina that occurs in cases of simple or normal scarlet fever, requires for the most part no special treatment. It is proper, however, and important that the physician should carefully examine the condition of the fauces at every visit, that he may detect any commencing inflammation of a severe type, as indicated by deep redness and swelling of the mucous membrane, or patches of whitish exudation. To treat this, a weak solution of nitrate of silver,—10 or 15 grains to the ounce of water,—applied three or four times a day; or a solution of sulphate of copper and quinine, 10 grains each to an ounce of rose water, recommended by Drs. Meigs, sen., and J. F. Meigs, and applied as the nitrate of silver, will ordinarily be sufficient. Tincture or infusion of capsicum is highly recommended by many. It does certainly produce very beneficial effects, applied by means of a sponge once or twice a day.

Chlorate of potash, one drachm, dissolved in a quart of water, may be given very freely as a drink. Whether it has any specific action or not, we may be certain it can do no harm.

The mild cases of scarlatina certainly require no more active treatment than that just sketched; many, if not most will as certainly do well without even that. Whatever treatment we may pursue, we must be careful to watch our cases, in order to meet any unfavorable symptoms, as they arise, for while we

deprecate any unnecessary medication, we insist upon *promptness* and *decision* in any complications that may arise.

We pass next to the treatment of the more malignant forms.

Bleeding.—We are fully convinced that this remedy, if but of small or doubtful value in the treatment of the mild cases, is in this class to be laid aside entirely; at least in any other than a merely topical application, by means of leeches or cupping. We are to remember the caution given in the preceding pages, that it is not any ordinary inflammation we are dealing with; on the contrary, the tendency of scarlatina of this grade, is to the typhoid type—a type of disease, it surely needs no argument to prove, but poorly adapted to bear depletion. The symptoms—delirium, rapid pulse, convulsions, jactitation, muscular twitchings, all indicate the nervous system to be chiefly implicated. Death occurring in this stage, rarely or never shows inflammation of any organ, often not even congestion. *A priori* reasoning would teach us to discard the use of all debilitating measures, and bleeding especially. It is not necessary, however, to resort to such arguments, for we confidently appeal to experience for the confirmation of our teaching. It will be found that the great majority of modern authors agree on this point, regarding blood-letting in any but a very modified form, as being useless, if not positively hurtful. That this is the result of fashion merely, we are not prepared to believe, especially in view of our own experience. Those who still recommend bleeding, urge the necessity of using it in the early stage, and then only with caution. But is it not better to lay aside a remedy of such doubtful virtues, at best; which confessedly, unless used with great caution, is liable to do harm rather than good?

As regards leeching and cupping, inasmuch as the quantity of blood abstracted is generally small, and designed to relieve some local congestion, they may at times be useful. But even here the benefit expected is often not found to result. Besides, the leech bites, sometimes prove very troublesome, being centres of erysipelatous inflammations. In short, we believe that in the great majority of cases the patient *is as well*, if not better, without the use of bleeding in any form, whether topical or general.

Purgatives.—All active or violent cathartics we should put under the same condemnation as bleeding, and for the same reason besides this additional argument exists against them, that they must increase the irritation of the bowels, to which we have seen them, is already too strong a tendency.

Active cartharsis seems to be even a less rational remedy than bleeding. Purgation cannot eliminate the poison, but

it can and will inevitably exhaust the patient, and aggravate some of the worst tendencies of the disease. Indeed, none but the mildest forms of purgatives or laxatives ought to be employed.

Emetics.—It may be, as claimed by a large and respectable body of medical men, that emetics in the outset of the attack are beneficial. The disease, however, not unfrequently *takes this matter into its own hands;* for vomiting is, as we have seen, not an unfrequent symptom. A mild emetic, however, in the earliest stage of the complaint is not open to any serious objection; but that it has any such sovereign efficacy as has been claimed for it by some practitioners we do not credit, indeed we know to the contrary. While, therefore, emesis may properly be employed in some cases, and is not likely to be hurtful when used with proper caution, it cannot be relied on, to mitigate the symptoms to any considerable extent. It happens sometimes that large collections of tough, viscid mucus, gather in the throat in young children, who are incapable of removing such matters; in this case a mild emetic of ipecacuanha will be beneficial.

Chlorate of Potash.—Within a few years this remedy has come largely into use; and in these cases in which there is a tendency to ulceration of the throat or mouth is a very valuable remedy. Whether it has any specific value, is not yet, we think, ascertained. Dr. Watson recommends a solution of the strength of one drachm to one pint of water, to be given daily, to the extent of one pint or pint and a half; and says, under the use of this solution I have remarked in many instances a speedy improvement of the tongue, which from being furred or brown and dry, has become clean and moist.

Solution of Chloride of Soda has not had so general a use, perhaps, as the above; but we believe it to be nearly or quite, equal to it in value. Some physicians who have relied on it, claim quite as satisfactory results as by any other mode of treatment.

Chlorine.—Dr. Watson speaks very highly of this article; stating that from several distinct and highly respectable sources, chlorine itself had been urged on his attention, as a most valuable remedy in the severest forms of scarlet fever; his informants stating that whereas they formerly dreaded to be summoned to cases of that disease, they now, having had experience of the virtues of chlorine, felt no misgivings in undertaking the treatment. The formula he gives, is as follows: Put eight grains of the chlorate of potash into a pint bottle, and pour on them one drachm of strong hydrochloric acid; close the bottle

until the violent action has ceased, then add one ounce of water and shake the mixture; and so on, until the bottle is full. The chlorate to be pulverized, and in cold weather, the bottle warmed. To be kept in the dark. A table-spoonful or two, according to the age of the patient, was to be given frequently; an adult may take the whole in a day.

Upon the question whether chlorine and its preparations have any specific action in curing scarlet fever, there is not, we conceive, sufficient evidence accumulated to enable us to decide. But this much is certain; there is enough to render them worthy a trial. We shall not stop to discuss the *modus operandi* by which they may be supposed to effect a curative influence; but only to urge the profession to give to these preparations an ample trial before condemning them.

Tonics and Stimulants.—We have described certain cases of scarlet fever as being marked from the onset of the attack by symptoms of great nervous prostration, sometimes amounting to collapse. The remedies called for here, are obviously those capable of sustaining the system while suffering under the depressing effect of the poison, and of aiding it in recovering from the injury received; and such remedies are stimulants and tonics.

Of the first class, carbonate of ammonia has been most extensively and, we may add, most extravagantly praised. It is undoubtedly a valuable remedy, and should be freely given from the first appearance of the adynamic symptoms. With it we must give other medicines and stimulants, as wine, brandy, quinine, serpentarian, and capsicum, administered in proportion to the severity of the symptoms. Beef tea should be given freely, to sustain the strength as much as possible, until the crisis has passed.

Bathing.—The use of the warm bath in this form of disease, is of even more value than in the milder cases. It quiets the restlessness and agitation, allays delirium, often removes coma and convulsions, and efficiently reduces the heat of the skin. It is true these good effects are often temporary, and sometimes wanting; but in cases at all amenable to treatment, the application of water, whether cool or warm, whether by affusion, sponging or immersion, cannot fail to give great relief. These methods are to be used according to the symptoms, so that no certain directions can be given. Sponging can always be employed, often when bathing is impossible, and may be repeated as often as the heat of the skin returns. The bath may be continued from fifteen minutes to half an hour, and repeated five or six times a day.

Treatment of the Complication.

1. *Angina.* The inflammation of the fauces and adjoining parts, as presenting some of the most formidable results of the disease, demand especial attention.

Leeches may sometimes be applied with benefit, but in the majority of cases the patient will probably do as well without them; besides the leech bites sometimes inflame and ulcerate, adding mischief to what is already bad enough.

Cold applications to the throat externally, in the form either of ice or clothes dipped in ice water, and wrapped around the neck, are found to be of great service sometimes. Dr. Corson strongly recommends that ice be taken in the mouth and allowed to dissolve slowly, a method also commended by Dr. Meigs.

Cauterization has been employed with the intention of arresting the inflammation, but the evidence in its favor is at best but doubtful, while by some physicians it is considered as positively hurtful.

Among the most valuable topical applications I believe we must rank cayenne pepper. The powder may be mixed in water and applied to the fauces by means of a small brush. The solution of chloride of soda, diluted with ten parts of water, and used as a gargle, will yield beneficial results.

The collections of viscid mucous in the throat are very annoying, and may prove fatal by stopping respiration. This should be diligently removed, which may be done by a sponge fastened on a stick. It will require to be done every few hours as long as the secretion continues, with the inability to remove it. Astringent washes of alum, or acetate of lead, will aid in removing the mucous and preventing its formation.

The external swellings may be relieved by warm poultices or fomentations. I have seen the application of the tincture of iodine very useful in allaying the inflammation; may be applied two or three times a day.

It happens in some rare cases that croup is developed by the extension of the inflammation to the larynx, and the formation of false membrane. The treatment of such cases cannot be actively antiphlogistic, for the patient will be already too much debilitated by the course of the disease. A solution of nitrate of silver, twenty grains to the ounce, applied by means of a probang and sponge, and even tracheotomy are modes of treatment promising the best results.

Coryza and Ottorhœa.—Coryza will be best relieved by cleansing the nasal passage by a weak solution of alum, or sage tea

and alum, or by the injection of a mild solution of nitrate of silver. The washes may be applied by means of a small camel's hair brush or sponge.

The ottorrhæa seldom occurs during the violence of the attack, and will not ordinarily require anything more than cleansing the ears two or three times a day, by means of warm water, or warm water and castile soap.

The retrocession of the efflorescenee, which sometimes happens, should be treated by means of warm baths, friction with stimulating liniments, and blisters, if necessary. Wilson says that an eruption evincing a disposition to metastasis, may frequently be fixed by means of a blister.

When we have evidence of the *congestion* of internal organs, as the *lungs* or *kidneys*, dry cupping, leeches and blisters, or sinapisms, will greatly suffice to relieve the affected organ.

We have reserved to the present a few remarks upon one or two specialities in the treatment of scarlet fever.

1st. *Cold affusion.*—This mode of treatment was first or mainly brought to the attention of medical men by Dr. Corrie; it has since met with some sanguine supporters, but with the profession at large it has had little acceptance; and it is evident that the conclusions of Dr. Geo. Gregory, are those adopted by the great majority of those who have given it a trial. He says: "Sanctioned by my uncle, the late Dr. Gregory of Edinburgh, this plan has been amply tried in all parts of the world, but it has not realized the expectations of its proposer. The truth is, that the cold affusion is applicable only to a small number of cases. It is adapted for young people with high anginose inflammation and burning hot skin, without plethora, without depression of nervous energy; but it is applicable to the scarlatina of adults, accompanied with coma, phrenitis, or marked debility. It is wholly unfit for cases of cynache maligna. It answers its purpose very well for the first day or two, but it is impossible to continue its use. Lastly, it seems to increase the disposition to dropsy."

We believe that we have in the preceding pages sufficiently indicated the cases requiring, and the best mode of applying water. It is undoubtedly a valuable adjuvant in our treatment of scarlatina, but it does not merit the exalted eulogiums passed upon it. It would certainly be the height of folly and recklessness to employ it in every case. Indeed, Dr. Currie himself relates two cases of malignant scarlatina so treated with a fatal result. In all cases demanding or justifying the use of water, the *warm bath*, *cool or tepid sponging*, and the *wet sheet*, will be found amply sufficient to meet every indication.

2d. *Inunction.*—Dr. Schneemann, of Hanover, first brought to notice the very simple mode of treating scarlatina by inunction with lard. From the first day of the illness, the patient is to be rubbed every morning and evening over the whole body with a piece of bacon, in such a manner that a covering is everywhere applied. The rubbing should be *thoroughly* done, slowly, in order that the skin may be saturated; should be applied twice a day for three weeks, and once a day for the fourth. After that, the patient may be washed with cool water and soap, and not until the skin has become accustomed to the cool solution, should the bath be commenced. The advantages claimed by Dr. S., are shortening of the disease to such an extent that the patient may leave the house at the end of ten days; the checking of all infection by the end of the third or fourth day; the relief of all uneasy and painful feelings in the skin, particularly those that accompany desquamation; the diminution of the amount of desquamation; the prevention of taking cold; and a greater security against complications and sequelæ. The treatment, he observes, is not likely to find much favor with the fastidious, on account of being dirty, but the first few days of its application produce results which make all this to be forgotten, and inspire mothers with enthusiasm. All, even the most painful symptoms, are allayed with rapidity, as if by magic; quiet, sleep, appetite and good humor return, and there remains only impatience to escape the sick room.

Dr. Maushner, of Vienna, gives his testimony in favor of this mode of treatment. Dr. Wilson (Dis. Skin, p. 425), is disposed to think very favorably of it; and Dr. J. F. Meigs speaks of a modification—the use of glycerine—with approbation.

In a few cases in which I have tried this mode as an adjuvant to the ordinary treatment, it did certainly fulfill some of the claims of Dr. Schneemann. But like most other specific modes of treatment, the result is not apt to be so favorable in the hands of others as in that of the inventor or proposer.

The formula given by Dr. Meigs may be employed, probably with quite as beneficial effects as the use of the bacon, and certainly it is far more agreeable and less repulsive. It is as follows:

R. Glycerine—one drachm.
Ungt. aq. Rosæ—one ounce, m.

It will remove the heat and dryness of the skin, the burning and irritation that are so very uncomfortable; and if it did no

more, this would be ample reason for employing it. It need not interfere with other appropriate treatment.

3d. *Diluted acetic acid*, proposed by Dr. J. B. Brown, of London. Dr. Brown, besides a course of local and general treatment, well calculated to give relief to the symptoms, adds to that the use of diluted acetic acid: ℞. Distilled vinegar, diluted, one oz., (one part vinegar to seven of water,) syrup f. four drachms, distilled water f. four ounces, m. Two table spoonsful every four hours for a child nine years of age. To be given throughout the entire duration of the disease, of whatever type, and for one or two weeks afterwards, or until desquamation is over.

Dr. Schnect, (*Am. Med. Jour.*, July '57,) has borne very strong testimony to the virtues of this mode of treatment, but I think an examination of his cases will convince any one that his general and local treatment would prevent one from forming an opinion of the efficacy of the acetic acid. The diluted vinegar would form a pleasant drink, and thus recommend itself, even if no specific virtues should be found to belong to the acid.

4th. *Belladonna.*—We have shown already that no virtues appertain to this doing as a prophylactic, and as a specific mode of treatment for the developed disease, we can entertain no more confidence in it; and the great mass of testimony from physicians is concurrent to this effect.

But we hasten to the consideration of the treatment of that most frequent and important sequelæ.

Dropsy.—As in many other cases so in the present, an "ounce of prevention is worth a pound of cure." It is of the highest importance, after the acute attack of scarlet fever is past, to protect the patient from all exposures to cold and damp atmospheres. Confinement to rooms of an equable temperature of 68° or 70°, for three weeks, at least, ought to be enforced. Flannel should be worn next to the skin, on which friction with a course towel should be made daily, with the use also of warm baths. The bowels should be kept in a regular and healthy condition. The diet should be farinaceous, with milk, eggs, and occasionally light broths. When these conditions are strictly enforced, the patient is kept in the most favorable condition to avoid the dropsy.

Occasionally dropsy comes on in a very mild form, requiring but gentle treatment; as the warm bath; purgatives, either calomel, or jalap and cream of tartar, in combination; a justly favorite prescription, spirits nitre, digitalis and squills, or tincture of sesqui-chloride of iron.

For another form, attended with febrile symptoms, scanty urine or hæmaturia, a more decided course is required. Most authorities agree in recommending the employment of bleeding as a first and most important measure. We are as much disinclined to the use of the remedy in the sequelæ as in the primary disease, believing that the cases requiring it are very few, and that depletion, when practiced, need be only local, or at least chiefly so.

Where the kidneys are congested, leeching or cupping over the loins to the amount of from two to six ounces, according to the age of the patient, and repeated, if necessary, will be found to relieve the local difficulty as effectually as if larger quantities of blood were taken from the arm, besides we do not, to any extent, weaken the powers of a system already impaired by previous disease.

The next point is to restore the function of the skin; the warm bath, containing common soda, succeeded by friction, should be frequently employed; the exhibition of some of the preparations of antimony along with the warm bath, will materially assist the determination of the skin. The wet sheet is a powerful means of exciting the most profuse diaphoresis; it is a remedy regarded with suspicion by the majority of medical men, but I believe it to be as safe as any other powerful remedy, if used with discretion, and what remedy is safe if used recklessly?

Purgatives, especially hydragogue, are a most efficient means of reducing the effusion. Full doses of the compound jalap powder is one of our most valuable combinations; it should be given every morning; calomel must not be neglected, but can be given in small doses during the day.

When hæmaturia is present, the tincture of sesqui-chloride of iron is strongly indicated, for while producing astringent effects on the capillaries of the kidneys, it assists materially in restoring the blood to its normal state, the blood being always more or less anæmic. The use of the tannic and gallic acids has been recommended by some authors, but we are confident that the tincture of iron will be found capable of producing all the good effects to be expected from them, besides being recommended by its peculiar effects on the blood.

Diuretics, apparently very much needed, must be used with caution, lest we increase the already congested state of the kidneys. Saline diuretics are prohibited during the continuance of the hæmaturia; otherwise they are useful. The preparations of potash, with squills, nitre, or broom, are valuable diuretics.

When the brain is implicated by uræmic poisoning, depletion, general or local, active catharsis, the warm baths and counter irritation, with diuretics, are to be used.

Effusion into the pericardium is sometimes excessive, producing the most distressing symptoms. To meet this it has been mooted whether we ought not to employ the trochar and draw off the fluid. I am not aware that this suggestion has actually been put in practice. The employment of the hydragogue cathartics, as jalap, elaterium, etc., will ordinarily give relief to patients laboring under effusion into the chest, as well as into the cellular tissue and abdomen.

The other sequelæ, as chronic diarrhœa, abscesses, sloughing, erysipelas, require no different treatment from that bestowed upon them as idiopathic or primary affections.

MEDICAL EDUCATION.

We regard as very just and well-timed the following observations of Prof. Joseph P. Logan, which we find in his recent excellent address, at the Atlanta Medical College:

"It has even become a favorite object with some who claim a place in our ranks, to degrade the American medical profession, in the estimation of the world, and to decry what is called in derision the 'American System of Medical Education.' Now, gentlemen, I am not here upon this occasion as the special champion of the institution which you have honored with your presence, or of any other medical college. Nor am I here to defend and endorse *as perfect*, the plan of educating medical men in the United States, but I am free to confess that I am heartily sick of, and prepared to denounce, as false, the stereotyped cry of the inferiority of the medical profession as compared with that of Europe. It is high time, in my judgment, that the supercilious and superficial traducers of American medicine, in or out of the profession, should be met by the facts. I would not wish to discourage any effort upon your part to master all the truths connected with our science, but rather to encourage you to the most indefatigable efforts to fit yourselves for the faithful discharge of the solemn obligations resting upon all those who assume the responsible position of physician. But I consider myself fully authorized in asserting that the regular medical men of the United States are offering an amount of science and skill far exceeding their appreciation upon the part

of the public, and furnishing a standard of qualification far higher than the people deserve, and fully equal to the demand —the highest order of science and skill in every department of our comprehensive profession, being readily and conveniently commanded by every community that has any proper conception of the remuneration that should be awarded to the self-sacrifice and toil, which you may be assured, is ever inseparably connected with eminence in medicine."

"Indeed, we learn from a late reviewer of medical education in Great Britain (which may be taken as a fair representative of Europe), as exhibited in an elaborate article in the *Westminster Review*, that there is great injustice in supposing that the American medical profession can be benefitted by any usage or example supplied by the profession in Great Britain; but, on the contrary, it is shown that there is no advantage in the comparison to the European medical man, in either mind or attainments."

"I cannot, therefore, consider it inappropriate to the subject or the occasion, to declare, upon the highest authority, the testimony being based upon a practical familiarity with Europe— and after a somewhat laborious investigaton of this question, that the American pupils in attendance upon foreign schools of medicine, are in no ordinary degree superior to the classes with which they are associated, and that the mass of physicians in Europe are in no respect superior to the mass in the United States, but, on the contrary, in their treatment of disease, it is fearlessly repeated that they are decidedly inferior."*

MARKOE ON SUBCUTANEOUS PERFORATION OF BONE IN UNUNITED FRACTURE.

We extract the following notice of drilling from a recent lecture of Dr. Thos. M. Markoe, one of the surgeons of the N. Y. Hospital, for the purpose of showing the result of the employment of the method and the opinions entertained of it in that establishment, and also as showing a change of opinion in regard to the question of priority of its use.

We differ only in some minor points with Dr. Markoe in regard to the value of the method, but as we hope ere long to

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* Caldwell.

publish another essay on the subject, we shall not enlarge upon the subject here.

1. *Drilling* the broken extremities, in such a manner as to wound, as far as may be, the opposed surfaces, and thereby to reproduce in a certain degree, the condition of recent fracture. As we now perform it, it was first suggested by Dr. Brainard of Chicago. The operation consists in making, first, a minute puncture through the skin, near the seat of fracture, and then introducing such a drill as this I show you, which is nothing more, in fact, than a long carpenter's drill, and with it boring in various directions, wounding as far as possible the surfaces of the fragments, as often as may seem necessary, to excite some action in their bony tissue. This operation may be repeated every eight or ten days according to the effects produced, or until union is found to be commencing, the parts being kept in the meantime in good apposition and at rest. The principle of this operation is, by the wounding of the broken extremities of the bone, to excite, by that means, anew, the disposition in the parts to throw out reparative material. It is supposed that when, in any case of fracture, the reparative nisus has failed of its effect, the disposition to repair ceases, in a great degree, and even if the obstructing cause be removed, the parts will remain quiescent, until the reparative effort is, in some way, again aroused. This is in fact the principle upon which are founded all the surgical procedures, which have gained any repute, in the management of these cases. This operation by drilling is a simple, easy application of this principle, and its subcutaneous character, while it does not impair its efficiency, renders it less liable to produce evil consequences. In its present form, it is too recent to be precisely appreciated as to its result, but it has been sufficiently tried to show, that in a certain number of cases, it will suffice for a cure. We have employed it in a number of cases, in this hospital, and in some of them, with a very satisfactory success. It has the great merit of being comparatively safe, and in a certain class of cases, not the worst, is a very valuable surgical resource.

ON AN IMPERFECTLY KNOWN FUNCTION OE THE PANCREAS, NAMELY DIGESTION OF NITROGENOUS FOOD, WITH COMPARATIVE EXPERIMENTS ON GASTRIC AND INTESTINAL DIGESTION, FOLLOWED BY A FEW CLINICAL DEDUCTIONS.

By L. Corvisart, M.D., *London Lancet.*

[The following important propositions, deduced from Dr.

Corvisart's skillfully conducted experiments, were sent to us, in manuscript, by the author, some time since, and we regret that very great pressure of matter prevented these valuable contributions to science being inserted before.—*Ed. L.*]

General Propositions, forming the Summary of an Essay, published with the above title, and read before the Academy of Medicine of Paris; the first part in 1857, *and the second in February*, 1858.

Very little is known about the manner in which the animal or nitrogenous food is digested in the *bowel;* and science has not advanced one step since the discovery of Purkinje and Pappenheim (1836) respecting the dissolving action which the pancreatic juice may exercise on such food—a discovery which has indeed remained almost unnoticed.

The physiological and experimental investigations on the *second digestion* (intestinal digestion), of which I have given an account (in the before-mentioned essay), have led to the follow-important results:—These are twofold: One group, of a physiological and direct character, are deduced from actual experiments. The other, of a pathological and indirect nature, are deductions or corollaries, which, as it seems to me, throw some light on clinical medicine.

I.—*Physiological Propositions.*

1. Nitrogenous food is digested both by the stomach and the pancreas.

2. The pancreas is, as it were, a supplementary organ, whose action, after copious meals, is added to that of the stomach.

3. Both digestions are of the same nature, as any article of food subjected to either is transformed into the self-same nutrimentive product (albuminose or peptone).

4. The pancreatic juice has peculiar reactions under the influence of heat or certain agents, which reaction *the gastric juice does not present.* As this difference in the juices is found when they are both charged with peptones, after digestion, it has erroneously been supposed that the peptones also differed. This pardonable error, being pointed out, will hardly again be fallen into.

5. When an article of nitrogenous food, or a portion of it, has undergone a thorough gastric digestion, the pancreatic juice no longer acts upon it, and does not transform it into another peptone.

6. The pancreatic juice is intended to act upon that part of

albuminoid substances which has left the stomach before being transformed into albuminose.

7. The amount of action of the pancreas may, in certain cases, be equal to that of the stomach.

8. If the mere quantity of secreted fluid were alone taken into account, the stomach might be looked upon as the more powerful, for the gastric juice is ten times more abundant than the pancreatic juice; but the latter is, to make up the difference, ten times richer in ferment (pancreatine).

9. The gastric juice has the advantage of a prolonged contact and stirring with the food; but the pancreatic juice has, on the other hand, the faculty of acting upon azotized aliments equally well, either in an alkaline, neutral, or acid state; it also acts three times quicker than the gastric juice.

10. Every thing is so disposed in the duodenum, that the pancreatic juice acts immediately it comes in contact with the food; and every thing is so arranged in the stomach that a large part of the food is transformed into peptone, the remaining part being, at the very least, so prepared, as rapidly to undergo the pancreatic digestion.

11. This preparation, which varies according to the quality and quantity either of the food or the gastric juice, etc., consists sometimes in a simple imbibition, sometimes in a dissevering or an extreme division, and sometimes in a solution. Pancreatic digestion, being forcibly very rapid, is usefully assisted by this preparation, the stomach acting respecting the pancreas in the same manner as the teeth do respecting gastric digestion.

12. It is, however, to be noticed that the pancreatic juice is able to accomplish, unassisted, the digestion of food whieh has not been subjected to that gastric preparation or division, in the same way as the gastric juice can digest food without extraneous help. Hence, pieces of albuminoid substances, being *directly* placed into the intestine in a raw state—that is to say, without any preparation—are perfectly and completely digested, the process being, however, somewhat slow. The pancreatic juice can, by its own unassisted energy, carry on the digestion of nitrogenous food, without requiring the adjunction either of the intestinal juice or the bile, to gain digestive properties. The digestion of azotized food, performed in glass jars over the water bath, by means of the pancreatic juice or isolated pancreatine, goes on in the same manner as in the duodenum.

13. When the gastric and pancreatic juices are separated, and act in succession, each performs its function com-

pletely, and the quantity of albuminose produced may thus be doubled.

14. But it is a remarkable fact, that when these two digestive ferments meet in a state of purity, the two digestions are no longer freely carried on. The mixture, far from doubling the produce, may reduce it to naught, for pepsine and pancreatine destroy each other under these non-physiological circumstances.

15. Nature, in the normal state, prevents this conflict, by three distinct means—1stly, by the pylorus, which separates the two ferments; 2ndly, by the very gastric digestion through which pepsine exhausts and abolishes itself in the formation of peptone; 3dly, by the bile, which destroys the activity of the gastric ferment, as has been shown by Pappenheim.

16. Bile does not precipitate the peptone produced by the influence of the stomach so as to destroy digestion and necessitate its being again begun. On the contrary, the bile itself is precipitated by the acid of the gastric juice or of the chyme.

17. The nature of the nitrogenous food has much to do with the quantity of peptone which the two successive digestions can produce for the requirements of economy. I have thus found in my experiments, that whilst musculine and caseine yielded almost one ounce of perfect peptone, albumen, or gelatigenous textures, though given in the same quantity, yielded hardly half an ounce.

18. At the outset, gastric or pancreatic digestion destroys the most characteristic properties of the various albuminoid substances. It liquefies insoluble ones, deprives albumen of its coagulability, and caseine of its property of coagulating by rennet. It also deprives gelatine of its property of turning into jelly, and musculine of being precipitated by chloride of sodium, etc. In short, it transforms all the substances into albuminose and peptone.

The different kinds of albuminose, although their individual reactions are much less marked than those of the albuminoid substances whence they are derived, have, nevertheless, distinct characters.

19. The nature of peptones varies as the nitrogenous substances from which they are derived. This variety satisfies the different (plastic?) requirements of the economy.

20. The peptones which are most alike and most difficult to distinguish from each other, are, the albumen-peptone; just as if the articles of food from which these peptones are derived were less different from each other than is generally supposed.

Fibrine-peptone and caseine-peptone are more easily distinguished from each other, and from the substances above named. From the slight differences existing between azotized articles of food, or peptones, there arises a kind of unstable equilibrium, favorable to the work of assimilation performed by the tissues of the body.

21. The generic character of peptones is, that they are always soluble in water, be the latter acid, neutral, or alkaline, which circumstance secures an easy circulation in the organism. Heat does not coagulate peptones, and hardly any of them are precipitated by acetate of lead. Besides, they resist insoluble metallic combinations a great deal better than nitrogenous articles of food.

22. Peptones form a genus, as well defined as the albuminoid genus. It is, however, evident, that by the progress of science, their nature will eventually be more exactly determined than can be done at the present period.

23. Some physiologists persist in the erroneous belief that the stomach merely swells or divides the food without dissolving it. How can they, however, withstand the testimony of the scales, which plainly show that, even where the weight of the food is considerable, every albuminoid article of food subjected to the action of the stomach is not merely divided, but dissolved, passes through the filter, and is absorbed by the membranes!

24. Others have maintained that the gastric juice, acting on nitrogenous food, produces only gelatine. They, however, lose sight of the fact, that the characters which place gelatine in a peculiar albuminoid class, have never been discovered in the chyme after a digestion of fibrine, caseine, musculine, or albumine, even when the chyme was neutralized; and that, moreover, gelatine itself completely loses its specific characters, in consequence of undergoing digestion in the gastric juice.

25. Others, finally, resting on the hypothesis, that the albumen of the blood is nothing but the digested matters themselves, maintain, that the pepetones are reduced to albumen, by losing their acidity—viz: by being neutralized. Such an error can hardly exist, except albumen and fibrine be alone taken into account, excluding all other aliments; as an incomplete digestion of the albumen and fibrine may lead to confusion. Crude albumen, in fact, always partly escapes gastric digestion; ill-digested fibrine is transformed into albumen only (caseiform); these two cases excepted, if experiments be made on the produce of concrete and washed albumen, of caseine, musculine, or

gelatine, regularly digested by the stomach, no doubt can any longer be entertained. These gastric peptones never contain any albumen.

26. The peptones, either received or produced by the pancreatic juice, do not, any more than the latter, form any new albumen, and, whether they be primarily or consecutively acid, alkaline or neutral, do not increase by an appreciable weight the coaguble albumen which the pancreatic juice, pure and without peptone, *normally contains.*

27. During the three hours which follow a meal (when digestive solution, transformation, and absorption are not much advanced), the blood of the vena portæ (compared to the venous blood generally) does not become charged with a noticeable quantity of nitrogenous matter through digestive absorption; whilst on the other hand, the elements of the blood, globules and fibrine become changed into albumen (caseiform) by a commencement of digestion, either in the intestine or the water bath, under the influence of the alkaline pancreatic juice.

28. Now, if it be considered that, during the first three hours of digestion—1stly, the pancreatic juice poured into the duodenum remains therein in a pure and active state; 2ndly, that this juice can pass into the vena portæ (for absorption by the mesenteric veins is not suspended); 3rdly, that this same juice can act in such an alkaline medium as the blood. If, moreover, it be considered that during those very three hours, a large portion of the globules and fibrine of the blood of the vena portæ is, weights remaining equal, transformed in that vein into albumen (which is a commencement of transformation similar to that which they would have undergone in the intestine under the influence of this same pancreatic juice) we can hardly refuse our assent to the hypothesis of *a true intra-venous digestion*, which hypothesis I confidently put forward.

29. No actually differential character has ever been pointed out between the nitrogenous matters which go by the name of extractive, and the albuminose, which is generated by gastric or pancreatic digestion. Now, it should be noticed that the lacteals, *the vena portæ, and the hepatic veins which are its continuation*, or in other words, the vessels which most directly receive the product of digestion,—are by far richer in extractive matter (albuminose) than the rest of the blood. It may, moreover, be noted that they are also richer in glucose.

30. The nutritive richness of the hepatic vessels (albuminose and glucose being contained in them) may be explained by the gastro-intestinal absorption, to which is energetically added

prolonged intra-venous digestion, although the liver has no share in the process.

II.—*Corollaries, vel Pathological Deductions.*

A. We may take it as almost certain that there exists (as regards albuminoid aliments) a duodenal dyspepsia, caused by the vitiation, insufficiency, or absence of the pancreatic juice, the symptoms of which appear only from the second or third hour of digestion, with a deeper-seated pain than is felt in gastric dyspepsia. (See Propositions 1, 2, 3, 6, 7.) The internal use of pancreatine is indicated* in cases of pancreatic duodenal dyspepsia.

B. Secondary duodenal dyspepsia may be the result of an almost total absence of that kind of division which food, under the least favorable circumstances, undergoes by means of the gastric juice before that food has been transformed into peptone. Pancreatic digestion is then slower, just as gastric digestion is slower when the teeth have not duly performed their functions. This secondary pancreatic dyspepsia may be cured by the treatment suited to the primary gastric dyspepsia.

C. Another secondary duodenal dyspepsia may arise, either from an excess of gastric juice, or from a patency of the pylorus; for in these two individual cases the gastric juice reaches the duodenum in unfortunately retaining all its active properties, which latter are prejudicial to the action of the pancreatic juice. (See Propositions 13, 14, 15 and 16.)

D. A third duodenal dyspepsia may arise from deficient biliary secretion, this deficiency being followed by the same unpleasant effects as are noticed in the two preceding cases, on account of the non-destruction of the activity of the gastric juice in the duodenum.

E. A peculiar kind of dyspepsia, which might be called of the portal vein, or hepatic, may arise from the vitiation of the intra-venous digestion.

F. Certain symptoms of dyspepsia, gastralgia, enteralgia, or

* Last year Dr. Corvisart made some clinical experiments on the therapeutic use of pure pancreatine. The difficulties he met with are recorded in the Gazette Hebdomadaire of Paris, May, 1857, p. 321, 322. Dr. G. Harley, who read a paper on digestion (just twelve months after the above date) at the meeting of the British Association for the Advancement of Science, seems never to have heard of Dr. Corvisart's article on the subject. Dr. Harley maintains, in opposition to the latter physician's statements, that in the administration of duodenal ferment, it is not necessary to imitate nature, who prevents pancreatine from passing into the stomach. For the causes of the difficulties met with by Dr. Corvisart, and the means to overcome them, see Propositions 13, 14 and 15, paragraphs C and D of the summary, and page 51 of the Essay.

hepetalgia, may erroneously be attributed to the stomach, the intestine, or the liver; these symptoms may simply be the result of the absorption of a too abundant, too active, or too irritating pancreatic juice by the vena portæ.

G. Bile, when it reaches the stomach, destroys the activity of the gastric juice within that organ, whether it penetrates the cavity pathologically through the pylorus or by the mouth and cardia. The knowledge of this fact may lead to the employment of bile to counteract the morbid super-abundance of the gastric juice.

H. The economy is supplied with a variable weight of peptone, though the weight of different kinds of nitrogenous articles of food and digestive force remain the same, the weight of the peptones varying according to the kind of nitrogenous food. It is a great error in hygienics to esteem the trophic, or nourishing power of a nitrogenous article of food, simply by the amount of nitrogen it contains. The trophic, or alimentary standard of food, is not so easily fixed.

I. When it is more urgent to allay pain and irritation about the digestive organs than to restore muscular energy, the food should consist of that kind of aliment which is most quickly and completely dissolved, whatever be the amount of peptone it yields.

J. But when it is more important rapidly to restore muscular force than to allay gastro-intestinal pain, we should, on the contrary, give such food which, the digestive force being the same, yields the greatest weight of peptone, though that food be likely to dissolve and digest slowly. (See Proposition 17.)

K. He who digests with one organ only (stomach or pancreas), is thereby put on half allowance as regards peptone; and he who eats only albumen or gelatinous tissue (instead of caseine or musculine, which yields double as much peptone), is also put upon half allowance; and with a normal and equal digestive force, is only half nourished. (See Proposition 17.)

In the two preceding cases, an over-activity either of the one organ (first case), or of both organs (second case), may occur, and extract from the food the full allowance of peptone. But we must not long trust this extreme functional exertion; for any persisting over-activity must sooner or later end in exhaustion.

L. We should not give for a long time one kind only of nitrogenous food, not only because one kind of azotized aliment is not capable of repairing the waste of the organism, but also

because the same article of food exclusively and continuously (for a week for instance), no longer excites gastric secretion, and no longer fully undergoes the digestive transformation.

M. Most of the peptones upon which I have made experiments, have the peculiarity of not being precipitated by neutral acetate of lead. Now, in all cases where the albuminoid matters of the urine happen to be of the albuminose kind, they remain in solution, in spite of the acetate of lead used to precipitate them. They therefore mask the sugar more effectually than all other ingredients of the urine, when the potash and copper test is employed. The presence of sugar may thus be overlooked when it really exists in the urine.

BOOK AND PAMPHLET NOTICES.

A Manual of Elementary Chemistry, Theoretical and Practical. By George Fownes, F.R.S. From the seventh revised and corrected London edition. Edited by Robert Bridges, M.D., Professor of Chemistry in the Philadelphia College of Pharmacy, etc. Philadelphia: Blanchard & Lea. 1859. From W. B. Keen.

"Fownes' Manual" has already been adopted as a text book in many of the medical colleges in this country, which shows sufficiently the estimation in which it is held. This from the seventh London edition is fully corrected, so as to represent the present state of chemical science, and render the work deserving of the same rank which it has hitherto maintained.

Woman: her Diseases and Remedies. A Series of Letters to his Class. By Charles D. Meigs, M.D., Professor of Midwifery and the Diseases of Women and Children, in the Jefferson Medical College at Philadelphia; Member of the American Medical Association, of the American Philosophical Society, and the Council; late Vice-President of the College of Physicians of Philadelphia; of the Swedish Society of Physicians at Stockholm; late one of the physicians to the lying-in department of the Pennsylvania Hospital, etc. etc. Fourth edition, revised and enlarged. Philadelphia: Blanchard & Lea. 1859. From W. B. Keen.

In all, except in one particular, this book presents internal evidence of being the work of a veteran in the profession, for in the extended experience from which the author draws his

teachings, and the graceful authority with which he enforces them, we could not fail to recognize the hand of a master. But, from the peculiarly free, easy and florid style which pervades the entire volume, so entirely different from all that we are accustomed to meet in standard works upon the science or art of medicine, we would be led to the belief, that it must be the work of one who is still inhaling the atmosphere of vernal hope and buoyancy, rather than of one who, as the author says of himself in another place, "is walking in the descending path of life."

We greet this new edition of Dr. Meigs' work on Woman with much pleasure, and commend it to the profession, especially to the younger members, who may receive much valuable instruction from its pages, conveyed in a pleasing style. The teaching throughout the work reflects the highest credit upon the head and heart of the author, as does the mechanical execution of the book upon the skill of its enterprising publishers.

M.

Importance of the Study of Legal Medicine; a Lecture introductory to the Course on Medical Jurisprudence, at the New York Medical College. By James Wynne, M.D., Lecturer on Medical Jurisprudence in the New York Medical College.

From this instructive lecture we extract a passage on the subject of analytical chemistry, which contains a well deserved tribute to several of our friends, including one of our colleagues in Rush Medical College. The lecture will well repay a careful perusal:

"In this class of cases it is always important to obtain the opinion of experts, whose studies and facilities for analysis give great and deserved weight to their opinions. The science of analytical chemistry is here of chief importance, and such men as Booth, of Philadelphia, Piggott, of Baltimore, J. Lawrence Smith, of Louisville, Blaney, of Chicago, and Campbell, Morfit, and Doremus, of this city, whose lives are devoted to this pursuit, and in which they have obtained deserved reputation, cannot be too widely known."

PROCEEDINGS OF MEDICAL SOCIETIES.

PROCEEDINGS OF THE SEMI-ANNUAL MEETING OF THE ESCULAPIAN SOCIETY, HELD AT GRAND VIEW, ILL., 25TH AND 26TH MAY, 1859.

The Society met in the Methodist Church, and was called to order by President, Dr. H. R. Payne. The minutes of the last meeting were read by the Secretary, and approved.

On calling the roll, twenty members answered to their names, or appeared during the meeting.

The Treasurer being absent, Dr. Gorham was appointed Treasurer *pro tem.*

The Censors recommended Drs. J. T. Pearman, of Elbridge, Ill., A. H. Kimbrough, of Georgetown, Ill., A. J. Miller, of Linton, Ind., and B. F. Keith, of Edwardsport, Ind., who were elected members of the Society.

On motion of Dr. Steele, adjourned, to meet at half past one P.M.

AFTERNOON SESSION.

The Society met according to adjournment, the President in the chair.

Dr. Davis read a paper on a peculiar form of the blue disease of infants, which was discussed by several members.

The Secretary read a communication from Dr. Washburn, on the elements necessary for success in practice.

Dr. Steele moved, the thanks of the Society be tendered Dr. Washburn for his paper, and Secretary be instructed to notify him thereof. Carried.

Dr. Davis moved, that a committee be appointed to memorialize the County Board of each county in this district, to remunerate physicians for attending paupers not in the poor houses. Carried.

Drs. Davis, Chambers and Mitchell were appointed.

Dr. Chambers read on essay on uterine tumors, which gave rise to a general discussion.

Drs. Hogue, Smith and Spears were appointed a Business Committee.

On motion, adjourned, to meet at eight o'clock this evening.

EVENING SESSION.

The Society met as per adjournment, the President in the chair.

Dr. Davis delivered an excellent address to an attentive audience, on quackery, ancient and modern.

Dr. Chambers moved the thanks of the Society be tendered Dr. Davis, for his address, and a copy requested for publication. Carried.

The audience was dismissed.

Dr. York reported a case of injury of one eye, followed by serious disease of the other, which was discussed by several members.

Dr. York offered the following resolution:

Resolved, That this Society recommend to each of its members to make and report to every physician in his vicinity, the names of all such persons as shall willingly neglect or refuse to make proper remuneration for their services; and it shall be good ethics to refuse rendering their services to such persons.

After considerable discussion, on motion of Dr. Davis, the resolution was laid on the table until to-morrow.

Adjourned, to meet at eight o'clock A. M.

MAY 26, MORNING SESSION,

The Society met as per adjournment, the President in the chair.

The Business Committee submitted their report, which, after various amendments, was adopted, by the appointment of the following gentlemen to write on the subjects opposite their names, for the next meeting, viz.:

Dr. H. R. Payne—Effects of Malaria in Modifying Disease.

Dr. Davis—Diphtheritis.

Dr. Gorham—Delirinm Tremens.

Dr. F. R. Payne—Epilepsy.

Dr. McCord—Milk Sickness.

Dr. Spears—Ophthalmia.

Dr. Miller—Menorrhagia.

Dr. Ten Brook—Vomiting in Pregnancy.

Dr. Keith—Croup.

Dr. Hoge—Hemorrhoids.

Dr. Van Dyke—Pneumonia.

Dr. Chambers—Dropsical Effusions.

Dr. Pearman—Typhoid Fever.

Dr. Kimbrough—Neuralgia.

Dr. Hinkle—Chlorate Potass.

Dr. Swafford—The Hypophosphites.

Dr. Smith—Rheumatism.

Dr. Mitchell—Dysentery.

Dr. Frizell—Hooping Cough.

Dr. McAllister—Ergot in Hemorrhages.

Dr. Stormont—Veratrum Viride.

Dr. Steele reported a case of Hemoptysis cured by ergot. Dr. Swafford a case of Puerperal Convulsions. Both cases were extensively discussed.

Dr. Davis offered the following resolutions:

Resolved, That the President shall delegate to some member of this Society, the duty of drawing up a circular, setting forth the advantages of a combination of skill and experience as is attained in medical societies; and the imperative obligation resting upon all members of the regular profession, to unite themselves with some association of this kind; and that a copy of said circular be sent to each respectable practitioner within the bounds of this Society.

Resolved, That the Treasurer be instructed to pay into the hands of the selected member, funds to defray the expenses of the same.

The resolutions were adopted, and Dr. Davis was appointed to carry out their intention.

Dr. York's resolution, offered last evening, was called up. After some discussion, on motion of Dr. Steele, it was laid on the table until the next meeting.

On motion, adjourned to meet at half-past one o'clock.

AFTERNOON SESSION.

The President called the Society to order, as per adjournment.

Dr. Van Dyke reported a case of snake bite. Dr. Spears reported a case of Erysipelas. Both cases were discussed.

Kansas, Edgar County, was selected as the place for holding the next meeting; and Dr. Chambers was appointed to deliver the public address.

Drs. Hogue, Herrick and Spears were appointed a Committee of Arrangements.

Dr. Chambers offered the following:

Resolved, That the President and Business Committee be instructed hereafter to make no appointment of a member to write on a special subject, unless they are satisfied that such appointment will be filled. Adopted.

Dr. Chambers moved the thanks of the Society be tendered the Committee of Arrangements;—also, the Trustees of the Methodist Church, for the use of their house. Carried.

Dr. Stormont offered the following resolution, which was adopted.

Resolved, That the Secretary be instructed to notify all members of the Society, who have not attended the meetings for eighteen months from this date, that if they desire a continuance of membership, they are requested to be present, or furnish a paper, at the next meeting; or if they desire an honorable dismissal, they are required to give notice thereof to the President or Secretary; otherwise, they will be suspended.

The Secretary was ordered to furnish a copy of these proceedings to the *Chicago Medical Journal* for publication.

On motion, the Society adjourned, to meet at Kansas, on the last Wednesday in October next.

H. R. PAYNE, *President.*

D. W. STORMONT, *Secretary.*

ILLINOIS STATE MEDICAL SOCIETY. ANNUAL MEETING AT DECATUR. REPORT OF PROCEEDINGS.

The annual meeting for 1859, of the Illinois State Medical Society, met according to previous appointment, in the city of Decatur, on the 7th of June, and was called to order by the President, Dr. H. A. Johnson, of Chicago.

Dr. Trowbridge, of Decatur, in behalf of the profession and citizens of that city, in a neat and appropriate address, extended a hearty welcome to the Society, and assured its members of the interest which the people and physicians of Macon would continue to feel in its prosperity and usefulness. The

roll was called, after which the order of business was suspended to allow of the election of permanent members.

The Society elected the following officers for the ensuing year:

President,	Dr. David Prince, of Jacksonville.
1*st Vice-President*,	Dr. H. W. Davis, of Paris.
2*d Vice-President*,	Dr. S. T. Trowbridge, of Decatur.
Treasurer,	Dr. J. W. Freer, of Chicago.

Drs. Luce, Young, and Chambers were appointed a Committee on Unfinished Business.

Dr. Stormont, of Grand View, presented a report from a committee, appointed at the last meeting of the Society, to memorialize the Legislature to enact a law for the Registration of Births, Marriages, and Deaths in this State.

From the report, it seems that the Legislature did not think the matter was of much importance. The difficulty, we presume, is, that they did not rightly understand the objects to be attained. All experience goes to show that the interests of society may be very much advanced by the provisions prayed for in this memorial.

The committee was continued for another year.

Dr. Young, from Aurora City Medical Association, presented a preamble and resolution, recommending the State Society to appoint a committee, whose duty it should be to use all proper means to secure the appointment of competent medical men to take the census of 1860, in the State of Illinois, and also to recommend what statistics ought to be taken for the benefit of science and health, other than those already provided for by law.

The preamble and resolution was referred to the Committee of Registration of Births, Marriages and Deaths.

The Society then adjourned till afternoon.

AFTERNOON SESSION.

The meeting was called to order at half-past two o'clock, by the President, Dr. Prince.

The report of the Committee on Obstetrics and Diseases of Women, by Dr. W. H. Byford, of Chicago, chairman, was pre-

sented, and an abstract read. The report was received, and referred to the Committee on Publication.

The Society proceeded to select a place for the next annual meeting. Jacksonville, Urbana, Chicago and Paris were proposed.

It was finally determined to meet in 1860, at Paris, on the second Tuesday of May.

Dr. Fishback, appointed by the Indiana State Medical Society, as a delegate, to attend the Illinois State Medical Society, was received, and invited to participate in the proceedings of the session.

Dr. E. Powell, of Chicago, chairman of the Committee on Surgery, read an abstract of the report, which was received, and referred to the Publishing Committee.

Dr. J. H. Hollister, of Chicago, presented a report on Nursing Sore Mouth, which was received, and also referred to the Committee on Publication.

The regular committee on Drugs and Medicines made no report.

Dr. Goodwin, of Rockford, a special committee, made no report.

Dr. Freer, of Chicago, also did not report, but was continued by his request.

Dr. Chambers, of Charleston, found that he had left his report on typhoid fever at home, but give a verbal synopsis. He was requested to forward it for publication.

The Committee on Legalizing Dissection made no formal report.

Members of the Committee stated, that the matter was suggested to several members of the Legislature, at the last session, but it was believed that nothing could be done, and, therefore, no formal action was taken.

The committee was continued.

The Society adjourned till Wednesday morning.

SECOND DAY.

Society called to order by the President, Dr. Prince, at half-past eight o'clock.

Minutes of previous day read and adopted.

The Committee of Arrangements reported quite a number of additional delegates and permanent members.

On motion of Dr. Freer, those proposing new members were required to pay the initiation fee for the candidates proposed.

The Committee on Prize Essays reported, that they had determined to award the prize of twenty dollars offered by Dr. J, M. Steele, of Grand View, for the best essay on the Uses of Opium in Inflammatory Diseases, to Dr. A. S. Hudson, of Sterling, Ill., and the prize of fifty dollars offered by the Society, to Dr. Philips, of Dixon.

The subject of this essay was the Influence of Climate on Tuberculosis or Consumption.

Dr. Davis, from Special Committee on Alteration of Blood in Continued Fever, reported in part, and was continued for another year.

Dr. Young extended an invitation to the Society to meet in Aurora in 1861, which was received and placed on file.

On motion, Drs. Brainard and Miller, of Chicago, and Davis, of Paris, were appointed delegates to attend the meeting of the Indiana State Medical Society.

Dr. N. S. Davis, of Chicago, was appointed to deliver the annual address at the next regular meeting of this Society.

Drs. Young, Stormont and Johnson were appointed a committee on prize essays for the ensuing year.

Dr. Whitmire offered twenty dollars as a prize for the best essay on the use of strychnine in the treatment of chronic malarial diseases.

Dr. A. Hard, of Aurora, was appointed a special committee on the medical use of Veratrum Viride.

Dr. E. L. Holmes, of Chicago, was appointed a special committee on Affections of the Eye.

The thanks of the Society were tendered to retiring officers, the Committee on Arrangements, and the citizens of Decatur.

On motion of Dr. Johnson, the Society adjourned, to meet in Paris on the second Tuesday in May, 1860.

On Tuesday, May 7th, the retiring President, Dr. H. A. Johnson, of this city, delivered an address before the Society,

on the subject of "Human Dissections, and the interest which the people should feel in the pursuit of anatomical studies."

On motion of Dr. York, it was directed that each member of the Society act as a special committee to procure the publication in his local newspaper of such portions of the address as may in his judgment seem proper.

TENTH ANNUAL SESSION OF THE INDIANA STATE MEDICAL SOCIETY.

TUESDAY MORNING, MAY 17.

The Society convened at half-past ten o'clock, in the hall of the House of Representatives, Dr. Bullard presiding.

Dr. Dunlap, the chairman of the Executive Committee, reported the order of business, which was adopted.

Adjourned till two o'clock P.M.

AFTERNOON SESSION.

Dr. Bullard in the chair. Minutes read and adopted.

Dr. Dunlap moved that a committee be appointed to conduct the President elect to the chair. Drs. Dunlap and Mears were appointed said committee.

Dr. Johnson was welcomed to the chair by the retiring President.

Dr. Davidson moved that a committee of three be appointed to select some member to deliver an address in this place this evening.

Drs. David, Brower and Fishback were appointed.

Dr. T. Parvin was appointed Secretary *pro tempore*.

The President appointed a committee on admissions—Drs. Bullard, Kersey and Meeker.

The committee appointed to report some member to deliver an address before the Society, reported the name of Dr. Bullard, the address to be delivered at the hall of the House of Representatives, at a quarter before eight o'clock this evening.

Committee upon admissions reported the following names:

W. H. Cyrus, Allisonville.

Nathan Mendenhall, Plainfield.

C. F. Elder, Knightstown.

Isaac S. Collings, Cicero.

M. J. Lynch, Indianapolis.

J. B. Davis, Indianapolis.

H. Winton, North Manchester, Wabash county.

Dr. J. McFadden Gasten, of South Carolina, was elected honorary member.

Dr. Bullard offered the report for the Treasurer, Dr. Parry. Received.

The Chairman of the Committee on Publication reported verbally, and asked to be discharged.

Committee on Finance asked further time to report. Granted.

Committee on Ethics—no report.

Committee on Diseases of Brain—no report.

Committee on Practice of Medicine—Dr. Kitchen read a report from Dr. Woodworth, chairman of the committee. Reported to Committee on Publication.

Committee on Surgery—The Chairman, Dr. Spencer, offered his report through the Secretaries. Report read, received and referred to Committee on Publication.

Committee on Obstetrics, Dr. Ayres, chairman, offered his report through Dr. Kitchen. Report read, and referred to Committee on Publication.

Committee on Medical Education, Dr. Smith, chairman, asked that it might be made the special order for to-morrow, at ten o'clock A. M.

Committee on Materia Medica—no report.

Adjourned to quarter before eight this evening.

EVENING SESSION.

Society met pursuant to adjournment, the President in the chair.

Dr. Dunlap moved that a committee on nominations, to consist of five, be appointed by the chair.

The Chair appointed the following committee:

Drs. Dunlap, New, Ritter, Meeker, and Kitchen.

Dr. Bullard was then called upon to deliver his address.

A copy of the address was requested for publication.

Adjourned to meet at nine o'clock Wednesday morning.

SECOND DAY—WEDNESDAY MORNING, MAY 18.

Society met at ten o'clock, pursuant to adjournment, the President in the Chair.

A resolution making the election of officers *viva voce*, instead of by ballot, lying over from last year, was, on motion of Dr. Woodburn, adopted.

The Committee on Nominations made the following report:

President—David Hutchinson, M.D.

Vice-Presidents—John Sloan, M.D.; R. M. O'Ferral, M.D.; J. S. McClelland, M.D.; R. E. Houghton, M.D.

Corresponding Secretary—George M. Darrach, M.D.

Recording Secretaries—F. S. Newcomer, M.D.; T. Parvin, M.D.

Delegates to the American Medical Associatlon—Drs. Chas. Fishback, S. G. Collier, Wm. Davidson, M. M. Latta, L. Humphreys, C. West, T. W. Fry, H. Winton, W. C. Thompson, R. De Pew, G. S. Freeman, Wm. Lomax, Horace Coleman, W. H. Wishard, M. H. Wright, P. H. Jameson, T. W. Taylor, Henry Cox, S. B. Butler, Wm. Readea, S. D. Day, A. M. Vickery and H. D. Henderson.

Delegates to the Ohio State Medical Society—Drs. Charles Parry and T. Parvin.

Special Committees.

Progress of Medicine—J. H. Brower, M.D.

Surgery—D. Meeker, M.D.

Obstetrics—Wm. Davidson, M.D.

Medical Education—Charles Fishback, M.D.

New Remedies—W. T. S. Cornett, M.D.

Operations for the Relief of Defective Vision—T. Parvin, M.D.

Continued Fevers—P. H. Jameson, M.D.

Microscopic Investigation—C. West, M.D.

Report adopted.

Dr. Bullard, Chairman of the Committee on Finance, reported the annual assessment to be two dollars. Adopted.

Dr. George Free, of Cincinnati, Ohio, was elected an honorary member.

Dr. Meeker, Chairman of the Committee on False Joints,

which was continued from last year, read his report. This report was referred to the Committee on Publication.

The hour for the special order of the day having been announced by the Chair, Dr. Fishback, from the Committee on Medical Education, offered his report. Referred to Committee on Publication.

The resolutions accompanying the report were then taken up *seriatim*, and after several amendments, adopted as follows:

Resolved, That, concurring in the general principles of the foregoing report, and for the purpose of developing and diffusing a correct public sentiment both in and out of the profession in reference, and for the further purpose of securing concert and harmony of action in some definite proposal to the next Legislature for its official action in behalf of the public good, this Society will hold an extra meeting in this city one day before the next annual meeting, for further discussion of the subjects embraced therein. Second, that local Medical Societies throughout the State, and all members of this Society, be urged to agitate the subject in their respective localities. Third, that a Committee of Arrangements and Correspondence be appointed to make all needful preparations for the proposed extra meeting.

Dr. Dunlap was requested to read his paper on "The Plurality of the Races of Men, and their Destiny," a copy of which was requested for publication.

Adjourned to half-past one o'clock P.M.

AFTERNOON SESSION.

The Society met pursuant to adjournment, the President in the chair.

The Committee on "the Treatment of Syphilitic Diseases without the use of Mercury," reported by Dr. Haughton, chairman. Read, and referred to the Committee on Publication.

A paper on Microscopy, sent by Dr. West, was read by Dr. Hutchinson, and referred to the Committee on Publication.

[At this point the Society took a recess of an hour, to accept of the hospitalities of our ex-President, Dr. Bullard.]

The President appointed the following standing committees:

Executive.—Drs. P. H. Jameson, C. Brown, J. M. Gaston, T. B. Harvey and J. J. Wright.

Finance.—Drs. T. Bullard, W. R. Winton, B. S. Woodworth, M. H. Harding, and G. M. Darrach.

Publication.—Drs. T. Parvin, F. S. Newcomer, J. H. Woodburn, J. M. Kitchen, and R. E. Haughton.

Ethics.—Drs. H. P. Ayres, C. Parry, R. D. Mauzy, Ben. Newland and C. Bowman.

Committee of Correspondence and Arrangements for Extra Meeting.—Drs. M. H. Wright, J. M. Kitchen, and C. Fishback.

Dr. Brower offered the following preamble and resolutions:

WHEREAS, By a resolution of the American Medical Association, at its late meeting, the subject of the establishment of asylums for the treatment and cure, and by adequate remedies and moral agencies, of confirmed inebriates, was commended to the notice of the several State and County Medical Societies, and

WHEREAS, This Society recognizes in this movement, now in progress, especially in the State of New York, a principle, which, if effectually carried out, may result in the permanent cure and restoration to the useful pursuits of life, many of the unfortunate victims of this form of combined physical and mental disease, and thus carry out one of the most benevolent movements of the age; therefore,

Resolved, That a committee of one be appointed, whose duty it shall be during the recess of this Society, to collect from authentic sources, such information and statistics upon the subject as may enable its members more fully to appreciate its importance and carry out its object.

Dr. Brower was appointed said committee.

Dr. Fishback offered the following resolution, which was adopted:

Resolved, That a committee be appointed on criminal abortion, to collect statistics in this State embracing the number of attempts, in married and unmarried—the means used for producing—and mode of action of each kind of means.

The President appointed Dr. Fishback chairman.

Dr. Harvey read a report of a case, which was referred to the Committee on Publication.

Dr. Harvey moved that a delegation of three be appointed to attend the Illinois State Medical Society.

The President appointed Drs. Harvey, Fishback and R. M. O'Ferrall.

Dr. H. Winton read a report of a case, which was referred to Committee on Publication.

Adjourned to half-past seven o'clock P.M.

EVENING SESSION.

The Society met pursuant to adjournment, the President in the chair. Minutes read and approved.

Dr. Davidson read a paper on Scorbutus. Referred to the Committee on Publication.

A vote of thanks was tendered the Librarian for the use of the Hall.

Dr. Winton reported several surgical cases. Referred to the Committee on Publication.

The following members were present: Drs. T. Bullard, L. Dunlap, J. H. Woodburn, C. Brown, J. M. Kitchen, T. Parvin, Wm. Davidson, C. Fishback, D. Meeker, H. D. Henderson, G. W. Mears, R. M. Wellman, T. B. Harvey, L. Ritter, R. C. Moore, J. N. Green, Henry Cox, J. J. Rooker, J. S. McClelland, J. H. Bromer, D. Hutchenson, Nathan Johnson, V. Kersey, Wm. R. Smith, G. W. New, R. E. Haughton, W. C. Thompson, M. H. Wright, Wm. H. Green, S. A. Kennedy, John Lewis, F. M. Mothershead, J. H. Jameson, T. M. Stevens, L. Todd, J. M. Gaston, D. Funkhouser, G. M. Darrick, J. S. Bobbs, C. Parry, William Reader, S. G. Wallace, S. G. Collier, A. J. Mullen, B. Bartholomew, J. S. Comingore, S. M. Vickney, S. J. Boynton.

Adjourned to meet third Tuesday in May, 1860.

NATHAN JOHNSON, *President.*

F. S. NEWCOMER,
T. PARVIN, } *Secretaries.*

MISCELLANEOUS MEDICAL INTELLIGENCE.

Suspension of a Clinical School.—The *Peninsular and Independent* announces the suspension of the Clinical School connected with the medical department of the University of Michigan.

New Colleges.—The *American Medical Gazette* states that at the close of his winter's clinical course, at Bellevue Hospital, Dr. James R. Wood announced a new medical school in connection with that institution as in embryo.

The physicions of Alabama are making efforts to establish a medical school in Mobile, Alabama. D.

Appointment and Resignation of Medical Professors.—Dr. George B. Wood has resigned the posts he has filled for many years as Professor of Theory and Practice in the University of Pennsylvania, to take effect at the close of the next lecture term, and of Physician to the Pennsylvania Hospital, where Dr. F. G. Smith has already succeeded him.

The Faculty of the Medical Department of Pennsylvania College have resigned simultaneously, and the Faculty of the Philadelphia Medical College have been elected to occupy their places. The causes of this summary change have not been made public.

New York Colleges.—Drs. C. R. Gilman and B. F. Barker have resigned their respective chairs as Professors of Obstetrics and the Diseases of Women and Children, the former in the College of Physicians and Surgeons, and the latter in the New York Medical College. Dr. Geo. T. Elliott, jr., has been appointed to the vacancy occasioned by Prof. Gilman's resignation, and Dr. E. R. Peaslee to fill Prof. Barker's chair.

Dr. Markoe, clinical lecturer in New York Hospital, has

been appointed Adjunct Professor of Surgery with Prof. Willard Parker.

Dr. Austin Flint, jr., the able editor of the *Buffalo Medical Journal*, has been appointed to the chair of Physiology and Microscopic Anatomy in the University of Buffalo, and Dr. S. Eastman to the chair of Anatomy.

Medical Journals.—The *Montreal Medical Chronicle* has ceased to be issued. Its editors say the action of the new Canada postage law would render its publication an expense to its publishers.

The *Maine Medical Journal* has not been sustained by the physicians of that State, and consequently its editor refuses to issue it another year.

The *Buffalo Medical Journal* will hereafter be edited by its former editor, Dr. Flint, jr., at New York, and continue to be published at Buffalo. D.

EDITORIAL.

RUSH MEDICAL COLLEGE.

The arrangements for filling the vacancies in the faculty of this institution are complete. The corps of professors will be made up as follows:

Prof. of Surgery, Daniel Brainard, M.D.

Prof. of Chemistry and Pharmacy, James V. Z. Blaney, M.D.

Prof. of Surgical Anatomy, Joseph W. Freer, M.D.

Prof. of Obstetrics and Diseases of Women and Children, DeLaskie Miller, M.D.

Prof. of Theory and Practice of Medicine, J. Adams Allen, M.D.

Prof. of Physiology and Pathology, A. S. Hudson, M.D.

Prof. of Materia Medica, Ephraim Ingalls, M.D.

Prof. of Descriptive Anatomy, Robert Rea, M.D.

Of the gentlemen whose names have not before appeared in

connection with the college, it is only necessary to say that all are eminently qualified. Several of these are already well known as medical teachers:—Prof. Allen for his connection with the University of Michigan. Prof. Hudson for his connection with the Iowa University, of Iowa. Dr. Rea was formerly Demonstrator of Anatomy in the Ohio Medical College, and has given several courses of lectures on anatomy and physiology. Dr. Miller is a leading practitioner in his department in the city; President of the Chicago Academy of Medical Sciences; and already favorably known to the readers of the *Journal.* Dr. Ingalls is a graduate of Rush Medical College, who has, with great diligence and success, cultivated the branch which he is to teach.

The College Clinic, the Marine Hospital, and the City Hospital, will all afford their advantages for clinical instruction. It is the determination of the faculty to spare no effort nor expense to place Rush Medical College on a par, so far as regards the means of instruction, and the size and character of its classes, with the first institutions of this country.

CORRECTION.

In speaking of the number of lectures to comprise a course in the Lind University, 430 was printed instead of 480 as written. The number embraced in a course of sixteen weeks was correctly stated at 576.

We have been informed that in the article referred to, injustice has been done to the University of Michigan in classing it with the Lind University. It appears that the course in the Michigan University embraces the full number of lectures, although given in a longer term. We cheerfully make this correction.

CURE OF ANEURISM BY COMPRESSION.

Dr. Brainard has recently succeeded in curing a popliteal aneurism by compression of the femoral artery. The compression was kept up 60 hours, when the pulsation was found to have ceased.

This is the fourth case in which Dr. Brainard has used compression for the cure of popliteal aneurism, and the first in which it has been successful. The failure in the former cases was owing to the unwillingness of the patients to bear the pain of pressure. P.

The custom in our medical societies, of referring unread papers to the Committee on Publication, we think, a wrong and injurious one.

In the first place, we should imagine no one would be willing to prepare a paper, giving it all the care, attention and research necessary to do it properly, and justice to himself, would be willing to donate his services for such a purpose with no other equivalent than seeing his name and paper in print.

One of the principal objects for which societies are formed, is for the interchange of opinion, and to elicit thoughts and ideas, and what serves as so fruitful a basis or text, as the several papers there presented; therefore, we say, a writer should be unwilling to allow his paper to pass undiscussed, that he, in common with the rest, might receive his reciprocal share of profit.

In the next place, courtesy demands that the society, unless for very good and sufficient reasons, should listen to the results of the labors of its members.

Many of the papers are prepared with great care, and are abundantly worthy of the attention of the Society, and to be placed among its recorded labors; others are not.

The position of the Committee of Publication is such, that very little option is granted them, and a reference is almost, or entirely equivalent to an order for publication. The Society should hear, and then have independence enough to decide upon the worth or inferiority of papers presented.

The amount of business, as yet, of the Illinois State Medical Society, is no excuse, and the absence of the writer can easily be remedied in a substitute.

The difficulty is yet comparatively small, and we only allude to the subject that it may not be allowed thoughtlessly to grow into a serious evil, as it has in many States. R.

CITY HOSPITAL.

We are happy to inform the readers of the *Journal*, that the City Hospital is now completed, and arrangements have been made by the municipal authorities for opening the same, for the reception of patients. The site of the building, in the Southern portion of the city, was selected most judiciously for the salubrity of its location. It has been constructed upon the most approved plans, for perfect ventilation and convenience, and will admirably fulfil the purposes for which it was established. It is capable of accommodating comfortably about two hundred patients, and will be under the charge of the following Board of Physicians and Surgeons.

Physicians—DeLaskie Miller, M.D., Joseph K. Ross, M.D., and Samuel C. Blake, M.D.

Surgeons—Daniel Brainard, M.D., Geo. K. Amerman, M.D., and Geo. Schloetzer, M.D.

A ward will be appropriated for the reception and treatment of diseases of the eye, which will be attended by E. L. Holmes, M.D., one of the attending surgeons of the Chicago Charitable Eye and Ear Infirmary.

A lying-in ward for parturient women will also be connected with the Hospital.

Thus we may affirm that the city, for the first time, possesses an institution for the care of the sick, in all respects, commensurate with the demands of the public and interests of the profession.

This arrangement affords ample facilities for clinical instruction, which will be given in all the departments, to those pursuing their medical studies in this city.

We feel confident the profession will appreciate the great advantages thus afforded for the attainment of a thorough knowledge of clinical medicine.

The rate of charges in the public wards for all patients, either from this city, or from a distance, will be $3,50 per week, which will embrace medical and surgical attendance, medicines, board, lodging and nursing. For those who wish private rooms and special attendance, such rates as may be fixed, on the application of the patient. M.

THE CHICAGO

MEDICAL JOURNAL.

VOL. II. AUGUST, 1859. No. 8.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

TWO CASES OF LITHOTOMY.

Reported chiefly with reference to the Constitutional Treatment in connexion with Operations and Injuries.

BY DAVID PRINCE, M.D., JACKSONVILLE, ILL.

I have in my mind the lessons of my early medical education, enjoining an extreme antiphlogistic treatment and the least possible nourishment in connexion with operations and injuries, *lest inflammation should run too high.* The lessons of experience have greatly modified those of my early education.

Case 1.—Marshall Sharpe, aged 21, of rather short stature and solid make, with a bluish skin, as if there were a rather sluggish capillary circulation, and walking carefully, as if afraid of any jar, says that ever since his earliest recollection he has had some trouble in his bladder. He has the usual symptoms of stone, and gives the test by sounding.

Jan. 25th, 1857. After five days of spare diet, with a quarter grain each of morphia and belladonna at bedtime, to secure good sleep of nights, and after taking a dose of oil the night before to effectually evacuate the bowels, and having been etherized (with ether ¾ and chloroform ¼ mixed), Drs. Edgar, Jones, Gaddis and Christie being present,—the patient being

confined in the usual position, and the presence of the stone having been demonstrated by the click against the sound—the ordinary lateral operation was proceeded with, using a scalpel to open into the staff, and a long, straight, slender, wide-pointed bistoury to divide the prostatic body. Four stones were extracted, with an aggregate weight of a little less than three ounces (922 grains).

There was nothing remarkable in the operation, and at its close every circumstance seemed favorable. Pulse 76 in the after part of the day. A tolerably comfortable night followed.

Second day. Vomited in the morning after drinking considerable water; pulse 90.

At noon, a chill followed by a fever, with a pulse of 120; sweating off by six o'clock, with a soft pulse of 100.

Eats a little toast with relish. This is the first nourishment he says he has taken for two days except gruel, having an idea that he could not starve himself too much.

He says he had a chill two weeks ago, which throws some light upon the present one. 5 grs. quinia to be taken to-night, with 20 drops laudanum, and 5 grs. quinia to be taken in the morning.

Third day. After a tolerable night, pulse 100 in the morning and 108 in the evening; eats his toast with only a moderate relish; no pain; some urine passes the natural way. Oil and laudanum to be taken at bedtime.

Fourth day. Oil operated; pulse 96; complains of nothing but weariness from lying; takes 5 grs. quinia this morning.

Fifth day. Pulse 88.

Sixth day. Morning.—Has slept poorly; urine passes almost entirely the natural way; has a troublesome pain in the back. Evening.—Pulse 100. Take oil and laudanum.

Seventh day. Slept better. Oil not operating, takes two laxative pills; not operating, the dose was repeated with the desired effect. Pulse 100.

Ninth day. Slept well; pulse 100. Urine passes mostly through the wound. Takes 3 grs. quinia in morning.

9 *p. m.* Pulse 120. Tongue assuming a brownish color. Takes quinia 3 grs. and laudanum 20 drops.

Tenth day. 9 *a. m.*—Slept well; pulse 120; feels weak. Takes during the day, wine at intervals, some chicken and some beef tea.

9 *p. m.* Pulse 100. Says he feels stronger. His living has agreed with him, though he has found no good taste in his chicken or in his beef tea.

This is significant. Here has been a mistake, growing out of the assumption, that the appetite would indicate the necessity of the system for food. This patient has not taken sufficient food for several days, simply because he was not told that he must eat it *whether he liked it or not.* This want of appetite has probably been aided by the force of imagination. Once get a patient to believe that the less he eats the better it will be for him, and if his case is so serious as to engross his mind, he will probably think he has no relish for food, just as there is no relish for fun, either in a revival, or upon a death-bed.

I wrote in my case book: "He seems for the last three days to have been sinking from inanition, but I have been afraid of stimulants, lest they should excite local inflammation; and he has had no appetite for any food. Finding the urine to cease entirely by the urethra, and to come altogether by the wound, I inferred that repair had ceased for want of the material in the blood with which to effect reparation, and the trial of to-day seems to show that I was carrying the antiphlogistic regimen too far."

He takes as a retiring dose, quinia 3 grs., laudanum 15 drops, and brandy a teaspoonful.

He is to have beef-tea and brandy once during the night.

Eleventh day. Pulse 92 in the morning, and 100 in the evening. Slept well, and says he feels better. No appetite; coating remains upon his tongue; urine all passes by the wound.

Takes 3 grs. quinia three times a day; a teaspoonful of brandy and two or three tablespoonfuls of beef tea, about every three hours.

Twelfth day. Pulse 80, both morning and night; sits up in a rocking chair for a short time; takes his beef tea freely, and it is *less offensive to him than at first.* Takes also pretty freely

of wine and a small quantity of brandy. Two evacuations from his bowels without cathartic medicine.

Though he has not relished anything up to this time, yet nothing has distressed him after it has been taken. I am reminded by this of the experience of Dr. Kane, who spent two winters near the 80th parallel with his party, undergoing great privations. He states that when suffering from inanition from deficient food and hard exercise, the appetite and relish for food became extinct, and he had to require his men to eat *against their inclination.*

Had I persisted in my fears of inflammation, and allowed my patient to starve himself, I should certainly have lost him. The case had come into that typhoid condition, so commonly arising from general causes, in which the success of the physician depends upon his skill in feeding.

From this time my patient gained appetite and strength rapidly, and there was no further any trouble.

Case 2.—Daniel McLaughlin, aged 26, of moderate stature and spare habit, presented himself six years ago, and on sounding, a stone was distinctly felt. He was advised to be cut, but did not like the advice. He afterwards spent two summers at the mineral springs in Green county, near Whitehall, and found great relief from the water. He thought himself cured, got married, went to farming, and begat children. He could ride on horseback, and do everything that an active and energetic man wishes to do.

Last harvest, while working hard, he got an irritation of his bladder with what was supposed to be an impaction of a stone in the neck of the bladder. After several days, his physician supposed that he pushed away the stone by means of a catheter, and the patient was relieved. He was, however, unable to do any more work, and continued feeble, having frequent attacks of chills, with a necessity to pass his urine from ten to twenty times every night.

As a last resort, he resolved to submit to an operation. For this purpose he presented himself, January 24th, 1859, with a habitual pulse of 100, emaciated, and unable to go up and down stairs without a great aggravation of the vesical irritation.

Having resolved upon the operation, he was in great haste to have it over with; but he was told that his pulse must come down to 70, and that this must require rest and time. By morphia to procure sleep, by non-mercurial laxatives to neutralize the constipating effects of the morphia, by moderately nutritious but easily digested farinaceous diet, I hoped to bring the pulse down to the test frequency of 70. In spite of this, his pulse remained about 90. The urine being acid to test paper, I gave him a decoction of uva ursi, with a small quantity of carbonate of soda. Not being satisfied with my treatment in quieting irritation, I gave him three grains of quinia three times a day, with a manifest influence in reducing the frequency of the pulse. The first day's trial working well, he took fifteen grains on the second day, but his pulse would not come below 80.

Feb. 2nd. Patient has less irritation, and is anxious for the operation. I had the night before resolved to operate if the wind would change from the warm, damp, negatively electrified south wind, to the cold, dry, positively electrified north-west. On rising in the morning, the wind was still blowing from the south; but by 7 o'clock it had changed to the desired north-west.

I have a suspicion that in operations there is not sufficient attention paid to such considerations; but when the question of success or failure turns upon a combination of influences, each one slight in itself, attention to them will often give the slow and clumsy operator far more reputation than manual dexterity can secure. In operations which can be done one day as well as another, it may be of no little importance to choose a day in which the warmly dressed man will say, "how fine and bracing," instead of a day in which he will say, "how dull and good-for-nothing it makes one feel."

The pulse was still at 80, ten beats above my test number, but knowing that it was kept up by an irritation which the operation would in part remove, I proceeded. Present: Drs. Long, Reed, English and G. Selden Smith, and some non-professional gentlemen. Patient etherized in bed to save the repulsion of being laid upon the table in the waking state (ether $\frac{3}{4}$, chloroform $\frac{1}{4}$, mixed). Operation proceeded with in all respects as in the other case just detailed, only that warm water

to the amount of a pint was thrown into the bladder previous to cutting. The application of the forceps revealed a stone larger than had been estimated. Forceps loosened from the stone and withdrawn. Bistoury reintroduced, guided by the forefinger of the left hand, and made to cut the prostatic body upon the right side, taking great care not to go beyond the prostatic investing membrane. This was done without any further enlarging of the external wound, and after the manner described by Dr. R. D. Mussey, in the *American Journal of Medical Sciences*, for January, 1844, page 264, and by Dr. J. C. Warren, in the same journal, for October, 1844, page 293. A larger forceps was introduced, and aided by the forefinger of the left hand in the rectum, and much patient waiting and gradual pulling, after the fashion of traction upon the child's head with obstetrical forceps, the stone was finally brought out, of a brownish color, as of lithic acid, measuring over three circumferences, —6, 7 and 8 inches, and weighing four and a quarter ounces avoirdupois.

The patient was about an hour and a half under the influence of ether, and after being put to bed his pulse was 150 and feeble; but giving several tablespoonfuls of whisky, and covering him up well with bed clothes, the pulse gained in force and fullness and lessened in frequency.

10 *p. m.* Pulse 100; pain in abdomen, but no marked pain on pressure. He has taken some brandy and broth during the evening. I introduced a portion of gum elastic catheter to ensure a drain from the bladder. Takes morphia $\frac{1}{4}$ grain in a tablespoonful of wine.

Second day. 5 *a. m.*—Pulse 100, small; has rested pretty well during the night; urine passes partly through the catheter and partly outside of it. He has taken a little wine several times, and ate a piece of toast with a cup of coffee. Says he has not as good a relish as yesterday morning, before the operation.

3 *p. m.* Pulse 100; some thirst. Says he feels faint and dizzy at times. Does not drink as much to-day as yesterday.

Third day. 7 *a. m.*—Pulse 100, soft. Has just taken a cup of coffee and ate a piece of toast. Skin of natural feel; some hoarseness in voice.

1 *p. m.* Pulse 100. Has taken more nourishment to-day than yesterday. He has taken tincture of veratrum viride, at 7 a.m. six drops, at 9 six drops, and at 1 p.m. twelve drops, making in all twenty-four drops. At the time of giving this last dose there was no apparent effect from the others.

5 *p. m.* Pulse 56; vomiting greenish fluid; complains of being deathly sick. He is overdosed with veratrum viride. Wine and morphia first given were thrown up, but half a grain of morphia given at 7 o'clock remained, producing a comfortable sleep.

8 *p. m.* Pulse 56.

Fourth day. 7 *a. m.*—Pulse 88. Has passed a good night. Eats his toast with a good relish.

11 *a. m.* Carefully changed from one bed to another.

9 *p. m.* Pulse 80; cheerful; eats his food with relish. Feels an occasional discharge of wind through the wound, indicating a fistula made either by cutting or tearing.

Fifth day. Pulse 80; good appetite; eats some meat.

Seventh day. Pulse 88. Six grains of leptandrin given last night have not operated, and he takes oil which operates well.

Eighth day. Pulse 80.

Ninth day. 7 *a. m.*—The wind has been blowing briskly from the north-west, bringing the temperature from 7° yesterday to zero to-day. Patient had a chill in the night, which woke him out of his sleep, leaving him with tenderness of the abdomen. No appetite; pulse 92. Gave one grain of morphia with hot applications to his abdomen, followed soon afterwards by a dose of sulphate of magnesia.

2 *p. m.* Pulse 112; sweating. He has been thirsty, but is now less so.

4 *p. m.* Pulse 100. Sulph. magnesia has operated. Severe tympanitis of the abdomen, and tongue and lips somewhat dry.

11 *p. m.* Pulse 108. Has taken three drops tinct. veratrum viride at 7 and 10, and now takes three drops veratrum viride, seven grains of quinine, and one grain of morphia, all in one dose.

12 *Nocte.* Skin of healthy softness. Takes three drops tinct. veratrum viride and eats a little.

Tenth day. 7 *a. m.*—Pulse 100. Alvine evacuations thin, and passing with but very little consciousness on the part of the patient. Ordinary respiration good, but a deep breathing is painful; pain felt in hypogastric region; tympanitis and soreness less. Takes three drops veratrum viride in a little wine.

9 *a. m.* Takes six grains quinia, one quarter grain morphia, and three drops veratrim viride, in wine; shortly afterwards, five grains acetate of lead in wine; soon afterwards, a tablespoonful of brandy, with very manifestly good effect both upon the feelings of the patient and in restraining the diarrhœa.

5 *p. m.* He has taken some toast and tea, and has slept well. Vomited about 12 o'clock, after taking some brandy, but he immediately took more, which remained upon his stomach.

10 *p. m.* Pulse 100. Has taken some nourishment and slept some. Takes one-third grain morphia in some brandy.

Eleventh day. 6 *a. m.*—Pulse 98, soft. Has taken considerable nourishment in small quantities. His extremities carefully bathed in warm water.

10 *p. m.* Pulse 98. Nourishment and brandy have been frequently repeated. Had two thin alvine evacuations in the middle of the day. Took three grains quinia and one quarter grain morphia some time during the day. Now eats a little toast. His nourishment is *urged upon him;* he has not much relish for it.

Twelfth day. Feb. 13*th.*—Temperature 3° below 0. Pulse remains about 100. Takes nourishment and is comfortable. About 6 p. m. he had a chill, followed by a fever of about two hours' duration. After this he took one-third grain morphia with three drops veratrum viride, and, not sleeping, the dose was repeated about 10 o'clock. Blister applied to the hypogastrium.

Thirteenth day. The drawing blister kept the patient awake more than usual. Pulse 92 in sleep and 100 awake. Took three doses of morphia during the night, and three grains quinia. Somewhat nauseated; vomited about 10 a.m., after taking some nourishment, and had a slight chill in the evening.

Fourteenth day. General appearance improved. Toast, beef tea, brandy and morphia are the remedies. Some improvement

in his relish for nourishment; has had several slight chills, followed by febrile flushes, during the day.

Fifteenth day. Doing well; appetite good.

Sixteenth day. Pulse 72; appetite good. A cathartic given.

Twenty-first day. Pulse 76 while sitting up and 60 while lying down.

Twenty-sixth day. Urine passes partly by the urethra.

Thirty-fourth day. Divided the sphincter ani to cure the fistula made in the operation.

Thirty-fifth day. Another chill treated by quinia and morpha.

Forty-seventh day. He rides out.

Fiftieth day. Gone home.

One hundredth day. There is still some leak from a small recto-urethral fistula which remains. He has had repeated chills since he went home.

It will be seen from the history of these cases that the treatment of the inflammation, as commonly understood, was a very small element. The practical end forcing itself upon the attention of the surgeon was to keep the patient from *running down.* The general health was below par from the long continued irritation, and the deranging influence of the operation tended to adynamic fever, requiring particular attention to secure the taking of adequate nourishment with stimulating and tonic medicines. In the preparatory treatment of the second case, quinia brought down the frequency of the pulse, while rest, anodynes and moderate diet failed to do it. After the operation, this patient passed no day without taking wine or brandy; and much of the time quinia, with food *against his taste*, and not because he liked it. In the first case, the turning point in the patient's recovery was when nourishment and stimulants were pushed in spite of his loathing of food, and even occasional vomiting.

The condition of these patients is only an exaggeration of the condition of the majority of persons who become the subjects of injuries in our climate; and the surgeon who would be successful, must keep a constant watch lest his patient fail of adequate nourishment. To the man of experience, it will generally be possible to distinguish the cases which really require antiphlo-

gistic treatment. According to my experience, however, it is safer to *anticipate* sinking from the shock of the injury (or operation), and from the tax upon the system involved in the reparation, than to anticipate high inflammation and destructive synochal fever.

As our idiopathic diseases mostly require a treatment which is very far from being antiphlogistic, so the treatment in connection with injuries and operations requires a like modification from that which may be proper when the diseases are of a high inflammatory character.

While it is imperative that watchful care should be exercised to see that the patient is properly supported and nourished, it is also of the very first importance not to neglect *depurative* means. A mercurial cathartic is often the necessary precursor to the administration of tonics and nourishment, and it seems, to a superficial observer, as though calomel were itself a tonic. The excessive *good eater* leaves his hotel and visits a mineral spring; drinking freely of the diuretic water, which, by its dissolving property, clears out the effete materials, and stimulates the processes of transmorphosis throughout the whole system, and he says, "how clarifying, how bracing, how appetizing!" Proper diet and exercise might have obviated the necessity for all this, but the medical man finds his patient in a morbid state, and these artificial means cut short the processes which diet and care may more slowly secure. It so happens, in vast numbers of diseases, accidents and operations, that the question of success is a question of time, just as much as the question whether a horse pulls a cart out of the mire turns on this other question, whether there is a shoulder to the wheel *in time*, before the horse is exhausted.

I have often thought that the skill of one physician over another turned more upon the right use of *depurants* and alteratives than upon anything else. In a plain case of exhaustion it is easy to give stimulants, and in an inflammatory fever to bleed; but when to give calomel, squills, potassa and so forth, so as to make them indirect tonics, and at the same time to be confident that one is *right*, this is an excellence of the highest order in medicine.

ARTICLE II.

REDUCTION OF DISLOCATED SHOULDER OF SIX WEEKS' STANDING.

BY EPHRAIM INGALS, M.D., PROF. OF MAT. MED. IN RUSH MED. COLLEGE.

This case occurred in a laboring man, aged about fifty years, having a muscular system of medium development, who, six weeks before I saw him, had a dislocation of the shoulder, which had remained unreduced. The humerus was thrown downwards and forwards, its head resting on the pectoral muscles. There was total inability to raise the arm; indeed, motion of the limb in any direction was extremely limited and caused much pain. Though impressed with the dangers that might attend the operation, nevertheless, the deformity was so great, and the inconvenience so serious to the patient, that I determined to attempt the reduction of the bone by the application of such force as I thought justifiable. The necessary preparations having been made for the application of the pulleys, the patient was placed very completely under the influence of a mixture of ether and chloroform, and a suitable degree of extension having been made and kept up for about five minutes, the heel was placed in the axilla. Extension was made by the hand at the same time that that by the pulleys was kept up, the arm being then carried across the body, the foot acting as a fulcrum, the head of the bone was thrown into its natural position, the breaking up of the adhesions being audible to all present. After removing the means by which extension had been made, the elbow was confined to the side, but in a little time the head of the bone seemed to slip from the glenoid cavity, though not nearly so great an extent as at first. Anæsthetics being again used, and Jarvis' adjuster applied, the head of the bone was returned to its proper position, after which a light compress was placed in the axilla, the elbow was carried upwards and bandaged to the chest, and the patient was sent to his home, twenty miles from the city. He returned to me in two weeks.

At this time the head of the bone was perfectly in its place, the appearance of the shoulder being not unlike that of the

other, except in a little lack of rotundity, which was not greater than might be expected from atrophy of the deltoid muscle, induced by absolute inaction for a period of two months. At this time I directed that passive motion of the joint be commenced, and the application of embrocations with friction; and if there has been no injury of the nerves of the part to occasion muscular paralysis (which may happen even when the dislocation is immediately reduced), I shall expect nearly a complete restoration of the usefulness of the joint. In the reduction of such dislocations, I think the pulleys better than the adjuster, as they leave the axilla unoccupied, and we are thus enabled to apply power more judiciously to the head of the bone. The length of time after such an injury, when it is justifiable to apply such force as would warrant any hope of reduction, is not very well fixed by practical surgeons; indeed, it must vary somewhat according to the condition of the different cases that present themselves for treatment. For this reason I think it well to record and preserve a clear history of every case in which the reduction of an old dislocation is attempted. The accumulation of such facts will enable the surgeon better to decide whether or not the reduction of such dislocations should be attempted, and, if generally successful or harmless, will serve as his justification should the attempt prove unfortunate in its results, which we should not forget it is always liable to do. I have not collated the general results of this operation, though we know it is often followed by a lack of success, and occasionally by even fatal results; in fact, it is likely to be so oftener than we should be led to believe from the perusual of recorded cases, for we well know that surgeons are more prone to publish the issue of favorable than unfortunate attempts. But when we reflect upon our inability to determine whether or not adhesions have formed between the head of the bone and the axillary artery, and the frightful results that might follow the laceration or injury of that vessel, I think every surgeon should ponder well on all such cases, and attempt their reduction with extreme reluctance.

ARTICLE III.

A NEW METHOD OF PREVENTING HEMORRHAGE IN OPERATIONS ON THE LIPS.

BY DANIEL BRAINARD, M.D., SURGEON OF THE U.S. HOSPITAL AT CHICAGO, ETC.

Most surgeons will admit that hemorrhage is the most serious accident attending operations for hare-lip, and others of a similar character. This, it is true, does not, with care, often prove fatal, but it is hurtful in delicate children, and in all has the inconvenience from blood running into the throat, of rendering the use of chloroform dangerous. To prevent bleeding in operations on the lips, I have for many years been in the practice of directing an assistant to compress the facial artery with the fingers when it passes over the base of the lower jaw. The effect of this is only to diminish without arresting the hemorrhage. Compressing the whole cheek by passing a finger within the angle of the mouth, and passing it toward the thumb on the outside, is more effectual, but cannot be accomplished without interfering to some extent with the manipulations of the surgeon.

To avoid this, I have recently substituted common forceps for the finger, and embrace the upper lip on each side at a sufficient distance to allow the pins to be passed. This also is attended with some inconvenience, and I therefore had a small one constituted with a slide by which it is fixed. This is bent at the point, which should be turned toward the alæ nasi. This, with slight additional pressure by the fingers of an assistant at the side of the alæ nasi in cases of hare-lip, or upon the chin in operations for cancer of the lower lip, so effectually arrests the hemorrhage that chloroform may be safely used. These forceps are convenient for holding the lip while the needles are being inserted.

The figure represents the form of forceps which I have found useful, and is of half size. One should be applied on each side.

ARTICLE IV.

PROF. DONDERS' MODE OF ASSISTING VISION IN CERTAIN OPACITIES OF THE CORNEA.

BY E. L. HOLMES, M. D., OF CHICAGO.

Every person of experience in diseases of the eye must have observed numerous cases in which, after all active disease had disappeared, more or less extensive opacities of the cornea had left the organ in an almost useless condition. Various operations and modes of treatment have been devised to restore vision in such cases, and, it is true, are often applied with advantage. No operation, perhaps, has been more successful than that for artificial pupil; and yet there are instances in which even this operation alone, however skilfully it might be performed, and however prudent the subsequent treatment might be, would fail to produce any beneficial results. The other operations are so seldom practicable, and the treatment by local applications so tedious, that any *simple* means of aiding vision, if it be found suited to even few cases, must be of interest to our profession.

The simple apparatus of Prof. Donders, although it had been applied already in cases of conical cornea, and had long been used by travellers in high latitudes to protect the eyes from the influence of the dazzling snow, had never been tried in certain conditions of the cornea. To the distinguished oculist of Utrecht belongs the credit of first extending its application to these cases, and, with an account of the discovery, publishing an analysis of the principles upon which its efficiency depends. The apparatus, in its simplest form, is nothing more in appearance than a common pair of spectacles, the glasses of which have been exchanged for thin slips of blackened ivory, pierced in the centre with minute apertures.

Since the appearance of Prof. Donders' paper in the *Netherlands Lancet* (of 1854 I think), the leading oculists in Europe have written or lectured more or less upon the subject, and proved the utility of this simple discovery.

The effect produced upon vision by the presence of opacities upon the cornea depends, of course, upon the degree of opacity and their situation.

However paradoxical it may appear, it is nevertheless true, that translucent obscurations of the cornea covering *portions* of pupil, although they admit more light into the eye than denser opacities of the same extent, in reality cause a much greater derangement of vision. The paradox, however, is easily explained away, when we recollect that it is among the conditions upon which distinct vision depends, that as many rays of light from an object as necessary should unite at the macula lutea of the retina, and that as few as possible from any source should be diffused upon the other portions of the nerve. It is from the fact that these conditions are observed that we obtain, under certain circumstances, a much more distinct view of an object by looking at it through a pin hole pierced through a black card, than with the unprotected eye, for the reason that the card excludes the greater portion of rays entering the eye from other objects, which, without the card, being refracted as diffused light upon different portions of the retina, would render the impression of the object less well defined. Now a perfectly opaque leucoma, if it covers nearly the whole of the pupil, leaving a very small part even of the cornea over it, in a normal condition, scarcely affects direct vision, since the leucoma merely reduces the pupil in size; which circumstance, as we can see by looking through a minute aperture in a card, is of comparatively little importance. If a perfectly opaque but minute leucoma is situated over the centre of the pupil, leaving an annular portion of it open to the rays of light, or if it lies in the form of a long, narrow cicatrix over the centre of the cornea, leaving a small section of the pupil clear each side of it, vision still remains almost wholly unaffected.

We can convince ourselves of the truth of these latter statements by holding a minute disk of black paper, much smaller than the pupil, over the centre of the cornea and *as near to it as possible*, when it will be observed that the disk disappears, while vision is not obscured. The same will be the result if a small black probe be held horizontally or perpendicularly in the same manner before the centre of the pupil. A double pupil, either congenital or accidental, is scarcely detrimental to distinct vision, when the eye is, in other respects, normal, since rays of

light from each point in an object pass through both pupils, and are united at the *same* corresponding point of the macula lutea.

The foregoing remarks, it must be remembered, hold true in cases only in which the obscurations shading portions of the pupil are absolutely opaque. When such obscurations are only semi-transparent, the eye is in a far worse condition. In this case, some of the rays pass through the transparent portion of the cornea, and would form a distinct image of an object placed in front of the eye if all other rays were excluded; but other rays fall upon the nebulous portion of the cornea, which thus becomes luminous, remitting from every point light, which is diffused in all directions in the eye, destroying the outline of the image of the object pictured upon the retina. The effects of this diffused light upon vision may be easily illustrated by a simple experiment. If a small, round aperture be made in the shutter of a darkened room, a bright disk of light, if the sun's rays be favorable, will be formed upon a screen behind the aperture. It is well known that inverted images of objects held in front of the aperture in the shutter will be formed within this disk. Now, if a piece of well ground glass be placed over half of the opening, leaving the other half free, the *room* will be lighter than before, from the light thrown in every direction by the luminous glass, while the images in the disk will be less distinct. Translucent obscurations, which emit *diverging* rays of light and ulcerating portions of the cornea, still remaining quite transparent, which refract light in all directions through the humors of the eye, although they may be quite minute, cause great indistinctness of vision. They act like small lenses placed near the cornea. A small light placed near the eye, as is well known, may be much more dazzling than a larger and more brilliant one at a greater distance.

A simple experiment with one's own eye will also show very satisfactorily the effect of the various kinds of nebulæ situated in front of the pupil. We have already seen that a disk of black paper, much smaller than the pupil, placed over the centre of the cornea and nearly touching it, does not materially diminish vision. Exchange this disk of paper for one of thin glass, and it will be seen at once that the diffused light thus produced will

render vision almost impossible. For a similar reason, a patient with some forms of cataract is unable to endure a strong light, although it would naturally be supposed that the clouded lens, inasmuch as it excludes a portion of light which would normally enter the eye, would render it less sensitive to the influence of light. But the lens, not being sufficiently opaque to exclude *all* the rays of light, is only clouded, and consequently becomes an illuminating body, sending diffused light to every portion of the retina. From the fact that the lens is very near the retina, its power of producing photophobia is proportionally great. It is probably for a similar reason that the pupil is usually contracted in certain cases of cataract, when we might expect to find it dilated.

It may not be out of place to allude to the fact that diffused light, however prejudicial it may be to vision under the circumstances just mentioned, is often of great advantage in lighting obscure apartments. It is well known that much more light can be admitted through the decks of a vessel by means of a piece of ground glass than by a much larger transparent piece. A room, situated in a narrow and dark alley, is much better lighted by ground glass windows than by plates of ordinary glass, for the light in the latter case falling directly through the window, illuminates only the small portion of the floor upon which it falls obliquely from above, while the ground glass becomes luminous, diffusing in every direction.

Whenever it is in any case once discovered that diffused light is the chief cause of disturbed vision, we have a sure palliative remedy in the use of the simple apparatus of Prof. Donders. When we reflect how instinctively patients with diseases of the eye, either by the hand or by partially closing the eyes, endeavor as much as possible to exclude all disturbing light, it seems strange that such an apparatus was not long before more extensively applied in such diseases.

The principle upon which it acts is easily explained. The opaque plates before the eyes exclude all unnecessary light, while the minute apertures permit pencils of rays from an object to fall upon the transparent portion of the cornea only, which

pencils, of course, are brought to a focus upon the retina, forming a distinct image.

In preparing these spectacles, a few practical points should always be borne in mind. They should be fitted closely to the edges of the orbit in order to exclude all unnecessary light. The aperture should be as near the cornea as possible, and in front of the unclouded portion of the pupil. To do this, it is well that a cone-shaped tube should be fitted to the plate, in such a way that the apex, in which is the opening, should be a couple of lines from the eye. It sometimes requires a little practice on the part of the patient to keep the pupil exactly behind the aperture, but this difficulty is soon overcome. Inasmuch as these spectacles are heavy and somewhat peculiar in appearance, it is often convenient for the patient, who is able to walk the streets without assistance, to provide himself with the apparatus adapted to one eye, to be carried in the same manner as a common eye-glass. This only need be used in reading and examining minute objects.

In cases of albinismus and of mydriasis (dilated pupil), either idiopathic or produced by belladonna, when vision is disturbed by too much light entering the eye, the patient will find much benefit from the use of this apparatus.

The operation for artificial pupil would be advisable in numerous instances, in which, without this simple contrivance, it would be almost entirely unsuccessful, from the presence of a translucent obscuration over a portion of the new pupil.

The apparatus is so simple, experiments are so easily tried, and, under proper circumstances, so sure to be followed with success, that it is useless at present to refer to particular cases in which patients have been benefited by its use. Nothing can be more satisfactory to a physician than to see and hear a patient, who has long been unable to read and discern minute objects, express his gratitude on being furnished with so simple a means of recovering, to a great extent, his lost vision.

ARTICLE V.

A RECORD OF THE MORTALITY OF THE CITY OF AURORA, FROM JULY 1, 1858, TO JULY 1, 1859.

[Read before the Aurora Medical Association, and communicated for the *Chicago Medical Journal.*]

BY L. H. ANGELL, M. D.

During the past year I have been at some pains to keep a record of the deaths which have occurred within the city. Our town, now containing a population of eight thousand, should adopt some efficient system of registration of its mortality, which would certainly furnish statistics of great and increasing value for all future time.

As is shown by this record—which I believe, in most of its details, nearly correct—the past year with us has been one of small mortality, and will furnish some evidence to establish the reputation for salubrity of the valley of Fox river, particularly at this point. Located upon the banks of a river which furnishes sufficient water power for various mills and manufactories, it would not be surprising if malarious disease should prevail at certain seasons, to such extent as to enhance the mortality. But the river through the city limits having sufficient fall to run with considerable current has no interruption, except that occasioned by the dam. This, at the foot of Main street, leaves a small portion of the city above exposed to malaria usually generated by such cause. Aside from this there is hardly a locality within the city open to this objection. The site of the town upon either bluff being sufficiently elevated to afford facilities for drainage in the direction of the river, which has been judiciously effected where it was needed, there now exist few localities where water will be seen upon the surface, even after the most protracted rain. Prior to '56, a portion of Broadway, in the East Division, and a section just north of this, were particularly obnoxious,—the one for a collection of water and filth, and the other for being originally a broad slough; but now the former is occupied by blocks of brick buildings, and the latter by the machine and car shops of the C., B. and Q. R. R., and, of course, thoroughly renovated in every particular; so

there now seems to be no reason why we should be liable to zymotic diseases from other than general or meteorological causes. Located as we are, forty-three miles west of Chicago, in the midst of prairie, with ample and wide streets and parks, —the lungs of a town,—we should be, as *we are*, second to no other in our sanitary condition, which is fully demonstrated by the following record:

Whole number of deaths, from July 1, 1858, *July* 1, 1859, -	57
Children under 5 years, - - - 36	
Between 5 and 10 " - - - - 2	
" 10 " 20 " - - - - 2	
" 20 " 30 " - - - - 4	
" 30 " 40 " - - - - 5	
" 40 " 50 " - - - - 5	
" 50 " 70 " - - - - 2	
" 80 " 90 " - - - - 1	

Diseases of Children under 5 years.

Pneumonia,	11
Cholera Infantum,	2
Scarlatina,	3
Croup,	2
Congestion Lungs,	2
Convulsions,	3
Diptheria,	1
Diarrhœa,	1
Inflammation of Brain,	1
Stillborn,	1
Unknown,	9
	36

Diseases of those upwards of five years: phthisis pulmonalis, 5; typhoid fever, 2; and 1 each of the following causes—puerperal fever, ulceration and perforation of bowels, disease of heart, scirrhus of pancreas and duodenum, pneumonia, ascites, cancer uterus, congestion of brain, cholera morbus, psoas abscess, pericarditis, accident from burn, apoplexy, and old age.

It will be seen by this that our acute affections have been

generally amenable to treatment, and that the greatest mortality has occurred from pneumonia of children and infants. This affection has been quite prevalent, and I believe the cases have generally yielded to treatment when early resorted to, and before empirical remedies have had a too protracted trial, at the hands of a nurse or would-be-doctor. I will now mention another feature which this record contains which is not without interest to the profession, in estimating the curability of our affections. Of these fifty-seven (57) fatal cases, fifteen (15) occurred in the hands of regular physicians, and thirty-five (35) were patients of irregular practitioners, including the different "pathies," eclectics and advertising doctors, who practise among us. Of the fifteen (15), more than half of this number were of incurable chronic diseases, and a portion of the remainder were subjected to irregular treatment until moribund.

It is somewhat singular that twenty-seven (27) of these fatal cases should have been patients of an empiric who boasted publicly of "not ringing the bells over his patients," while the nine members of this association who are devoting their entire attention to the practice of the profession, should have, in the same time and within the same city limits, but fifteen (15) fatal cases.

In the name of "*little children*," who should "ring bells over their patients?"

Aurora, July 4, 1859.

ARTICLE VI.

OPERATION FOR TUMOR OF THE THROAT, AND ON THE USE OF SCISSORS WHICH CRUSH THE TISSUES IN OPERATIONS FOR THE REMOVAL OF TUMORS, ETC.

BY DANIEL BRAINARD, M.D., PROF. OF SURGERY IN RUSH MED. COLLEGE, CHICAGO.

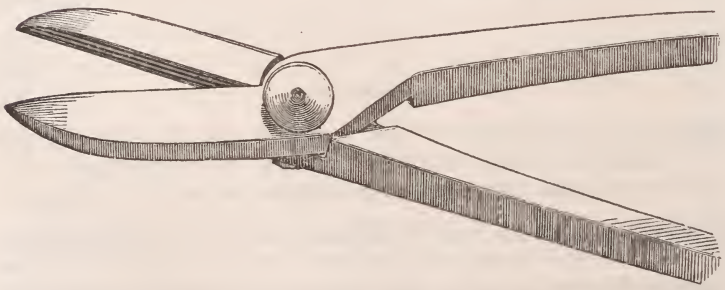
Every surgeon accustomed to remove large tumors must have found the advantage, indeed the necessity at times, of resorting to laceration of the tissues with the finger, instead of dividing them out with the knife. The benefits derived from the adoption of this course are greater rapidity, diminished hemorrhage, and

consequently greater safety. Many tumors have been successfully removed in this way, which otherwise would have been beyond the reach of surgery.

M. Chassaignac, by his instrument called *ecraseur liniere*, has rendered possible the application of the process of laceration to a class of cases in which it had before been impossible; and in operations such as those for polypi, hemorrhoidal, vascular and pediculated tumors of large size, nothing more perfect than his instrument seems desirable. But in many cases to which M. Chassaignac has applied it, such as cancer of the rectum, of the female breast, etc., and in others still in which its application is impossible, such as deep-seated tumors and certain forms of nasal polypi, it has seemed to me that an instrument acting upon the same principle, and capable of being more readily applied, might have advantages over it.

I accordingly have had constructed a forceps somewhat similar to the bone scissors of Liston, with which, pieces of tissue, no matter how firm (if not bony) or deeply situated, can be readily seized and crushed, so as to save time and avoid the danger of hemorrhage.

The figure of this instrument, half size, is given below. It is likely that a skilful instrument maker could improve upon the form of it; the principle is what I desire particularly to call the attention of surgeons to.



That division by a blunt instrument has, in some cases, advantages over incision is well known, but these advantages are as yet not fully appreciated. Pain having been annulled by the use of chloroform, it only remains to avoid bleeding, the shock

of operations, and absorption of pus and other deleterious fluids, and many terrible operations will be shorn of their terrors. It is believed that a more general application of the crushing process will tend materially to this end. It is with this hope that this instrument is submitted to the profession.

The first case in which it was used was that of Joseph Brown, from Wisconsin, operated June 2, 1859. The subject was a healthy man, 31 years of age, having a tumor of the size of an orange filling up the back part of the mouth. He stated that this had existed for twenty years, but was of small size until within the last two years, during which time it has grown rapidly, and at present interferes materially with deglutition and respiration.

On looking into the mouth, the whole of the back part is found filled with this growth, which extends from the right to the left side, and from the middle of the roof of the mouth to the base of the tongue. The surface is of a deep red color; form lobulated; to the touch, elastic, but not fluctuating. Has never been painful. On puncture with an exploring needle, bleeds freely. This growth, according to the recollections of the patient, seemed to have originated in the veil of the palate, a little nearer to the left than to the right side.

On attempting to dissect it out, the bleeding from a small incision was so free as to give much trouble, and even render the propriety of attempting it doubtful. It was then that the crushing forceps were resorted to. The tissue of the roof of the mouth being raised in successive portions, by passing under each an aneurismal needle sharpened, these were crushed and divided without the occurrence of any troublesome hemorrhage. The same process was then used at the sides. After the connections had been in a measure loosened, a large-sized curved needle, armed with a strong ligature, was passed through it. This enabled me to draw it forward so that the remaining attachments could be partly divided with the finger. The process of separation was completed with the crushing forceps. The posterior layer of the veil of the palate was now divided. This contracted, and at the end of three days the uvula, which had been depressed

beyond the reach of the finger, appeared in near its natural position.

The tumor, on cutting through it, presented the appearance of what is called *adenoid* by Velpeau, in his work on the diseases of the female breast. It was firm, uniform throughout in appearance, except at one point where there was a small cavity containing reddish serum. It was surrounded on all sides by a firm fibrous covering, which also extended between the different divisions. This, and the length of time during which the tumor had existed, make me believe that it is not malignant.

Its removal would have been very difficult without the forceps, as the knife allowed too much bleeding and the *ecraseur* could scarcely be applied.

No accident occurred, and the patient was able to return home at the end of two weeks, with the wound nearly cicatrized.

PROCEEDINGS OF MEDICAL SOCIETIES.

EXTRACTS FROM THE RECORDS OF THE CHICAGO ACADEMY OF MEDICAL SCIENCES.

S. C. BLAKE, M. D., *Secretary.*

May 6th, 1859.

* * * * * * *

Dr. L. P. Cheney was duly elected a fellow of the Academy.

Dr. Orrin Smith read an interesting paper on the pathology and treatment of croup. Dr. S. believes croup to be an ordinary inflammation, deriving its alarming and fatal character from the locality of the lesion; hence, the treatment should be antiphlogistic. He depends with great confidence upon antimony, mercury and veratrum viride; and his success, during a long series of years of extensive and varied practice, has been such that he no longer looks upon this terror of physician and parent as necessarily alarming, providing the physician is called in time to procure the specific effects of the remedies before a fatal termination.

Prof. J. H. Rauch presented the Academy with a valuable donation of specimens of the indigenous medicinal plants of the North-west.

Dr. E. L. Holmes read a very interesting paper on a new method of aiding vision in cases of opacity of the cornea.

Drs. Ross, Bloodgood and Cheney were appointed a committee to report to the Academy a new fee bill.

June 6th, 1859.

* * * * * * *

Dr. V. L. Hurlbut reported an interesting case of puerperal convulsions, which resulted in recovery.

Patient aged 21. When two months advanced in her first pregnancy, she was violently threatened with premature labor. At this time had some hemorrhage, but was relieved by the following prescription:

℞ Viburen,
Scutellarin,
Caudophyllin, aa. gr. viij.
Gelsemin, gr. iv., ft. pil. No. xvj.

Take two pills every one or two hours till relieved.

Dr. H. would call the attention of the profession to the active principles of vegetable medicines, especially the above articles, in whose power to relieve pain and allay nervous irritability, a long experience with them has given him great confidence.

When patient was seven months advanced in pregnancy, March 18th, Dr. H. was called, and found her suffering from severe uterine pains, which were quite regular; os uteri dilated, so as to readily admit the end of the index finger. Ordered the above prescription, and in one hour and a half patient was entirely relieved from pain.

March 20th. Found patient suffering from slight pain in top of head; had rested well the night previous; pulse 85; tongue with brown coat; bowels constipated, having had no dejection for one week. Ordered an enema to be given immediately.

In about an hour and a half from the last visit, in the absence of Dr. H. his father was called and found patient just recovering from a convulsion, with retching and vomiting; pulse small and

quick; dark coating on tongue; head hot; feet inclined to be cold. Ordered calomel gr. i., to alloy vomiting, and in half an hour gave the following:

℞ Calomel, gr. xv.
Sodæ sub. carb., gr. viij.

with drafts to feet and cold applications to head.

Dr. H. returned in half an hour and found patient had vomited medicine. Stomach irritable and unable to retain anything. Ordered an enema, which was followed by a large, dark colored and very offensive dejection.

Convulsions continued for thirteen hours to the number of twenty, coma and stertorous breathing filling up the intervals.

After long continued and careful manipulation by Dr. H., senior, the os uteri was sufficiently dilated to deliver.

Prof. Wm. H. Byford was called in consultation. At this time pains had entirely ceased; pulse 216.

Prof. B. proceeded to extract with the crotchet, after having made an unsuccessful attempt to deliver with the forceps.

Patient slowly recovered, having no convulsions after delivery.

Dr. J. N. Graham read a very interesting paper on medicinal inhalation in the treatment of chronic diseases of the throat and lungs. Dr. G. reported several cases of bronchitis and phthisis in its different stages, in the treatment of which he had been able to afford his patients great benefit. In many cases of the former disease he had succeeded in effecting a cure, and in the latter of alleviating much suffering, and of prolonging the life of his patients. Dr. G. uses principally iodine, iodide of potassium, cyanuret of potassium and hydrocyanic acid. He uses with the remedies tincture conium and chloroform, to allay irritation.

Dr. Ingals thought inhalations very good in cases of phthisis, but he believed the inhalation of pure air, accompanied with moderate exercise, if not the only remedy from which to expect benefit, very much the most important. Dr. I. would recommend to a patient with phthisis to purchase a horse and saddle and make a trip to Texas for a drove of cattle.

July 4th, 1859.

* * * * * * *

Dr. E. Ingals read a very interesting and able report of the

reduction of a luxation of the head of the humerus of six weeks' standing. The operation resulted in an entire success; the joint and muscles in its vicinity being restored to their normal condition in two months, with the exception of slight atrophy of the deltoid.

Dr. Ingals thought all such cases as the above should be reported, that the profession may have some data from which to decide at what length of time from the dislocation such reduction may with safety be undertaken.

MEDICAL SOCIETY IN NORTHERN IOWA.

MEDICAL CONVENTION.

Pursuant to a previous call, a large number of the medical practitioners of this and adjoining towns assembled at Jones & Bass' Hall in this city at 1 o'clock p. m., and proceeded to organize a Medical Society.

Amos Warner, of Elkader, was appointed chairman of the meeting, and H. C. Martin appointed Secretary.

Dr. Warner briefly stated the objects of the meeting to be the formation of a society of physicians, thereby securing unanimity of action among practising physicians, and the advancement of true medical science, in this portion of Iowa.

On motion, Dr. Scott, F. Andros and John Low were appointed a committee to examine credentials. This committee soon reported that they had examined as required and found the credentials of Amos Warner, H. C. Martin, A. Blanchard, J. T. H. Scott, F. Andros, John Low, Horace Hamilton, William Hyde and P. G. Parker satisfactory, and entitled to a seat in this body. The report of the committee was received and the committee discharged.

F. Andros, John Low and A. Blanchard were appointed a committee to draft a Constitution and By-Laws.

F. Andros, J. T. H. Scott and John Low were appointed a committee to report a Fee Bill.

On motion of Dr. Andros, Wm. Hoffbauer, of Guttenberg, was admitted to a seat in this convention.

The committee on Constitution and By-Laws handed in their report, which was accepted and the committee discharged. The different Articles of the Constitution were then read by the Secretary,—taken up separately, discussed and adopted, with little alteration of the draft as recommended by the committee.

By Art. 1 of the Constitution, as reported by the committee, the society shall be known by the name of "The North Iowa Medical Society."

The officers required by the Constitution are a President, Vice-President, Secretary, Treasurer and three Censors, to be elected annually by ballot. After the adoption of the Constitution by the convention, it proceeded to the election of permanent officers, with the following result: F. Andros, President; Amos Warner, Vice-President; H. C. Martin, Secretary; Wm. Hoffbauer, Treasurer; J. T. H. Scott, A. Blanchard and P. G. Parker, Censors.

Dr. Andros, on being installed into the office of President of the society, made a few appropriate remarks alluding to the importance of the enterprise, and expressing a great interest in the welfare of this society.

The report of the committee on Fee Bill was accepted and the committee discharged.

Article 19th of the By-Laws elicited a warm discussion, but the Article was finally adopted by an almost unanimous vote. The following is the Article:

The members of this society shall refuse to counsel with any irregular practitioner and all such physicians as shall refuse, after a reasonable time, to recognize the code of this, and be governed by the Fee Bill adopted by this society.

This article was adopted in consideration of the vast number of empirics who, by their disreputable practice, not only injure their patients but destroy the confidence that should exist between the public and the educated physicians.

Four meetings are to be held annually; the anniversary meeting to be held the first Wednesday in June of each year, quarterly meetings to be held the first Wednesdays of September, December and April.

John Low and A. Blanchard were appointed by the President

to read papers on some medical subject or subjects at the next meeting.

Some other general business was transacted, when, on motion of Dr. Parker, the society adjourned, to meet at Garnavillo on the first Wednesday of September next.

F. ANDROS, *President.*

H. C. MARTIN, *Secretary.*

EXTRACTS.

CLINICAL REPORT ON PNEUMONIA.

Dr. Austin Flint has published (*Buffalo Medical Journal*, May, 1859) an interesting clinical report on cases of pneumonia, observed by him at the New Orleans Charity Hospital, 1858 and 1859.

We subjoin his conclusions and remarks.

Of the fifteen cases, in all the pneumonia was limited to a single lobe. In one instance two lobes were successively attacked (cases 3 and 4), recovery from the first attack having taken place before the second occurred. This was probably true in another instance (case 9.) The lower lobe was the seat of the disease in all save two cases. In one of these (case 4), they had been previously affected, and this was probably true of the other instance (case 9).

Of the thirteen cases in which the lower lobe was affected, the disease was seated in the right side in seven, and in the left side in six.

The pneumonia was primary in twelve of the fifteen cases. Of the three instances in which it was developed secondary, it occurred as a complication of typhoid fever in two, and as an intercurrent affection in pulmonary tubercolosis in one instance.

In the twelve primary cases, the disease was uncomplicated in all but three instances. Delirium tremens was developed as a complication in ten cases; and in one instance, pleuritis with considerable liquid effusion coexisted. More or less pleuritis is almost uniformly present in cases of pneumonia, but it is certainly rare for the plueritis, under these circumstances, to be attended by much effusion.

The ages of the patients varied between 20 and 45, the mean age being about 30. In nearly every instance the patients were

robust and in good health when attacked with the disease. Several were intemperate, and several were subject to attacks of intermittent fever.

Exclusive of three cases remaining in hospital at the end of my term of service (two of these remaining with other affections), and of the case which ended fatally the length of stay in hospital varied from six to twenty-two days; the mean period being a fraction over thirteen days.

A fatal result occurred in one case only. In this case, as already stated, the patient had been discharged a few days before, convalescent from an attack of pneumonia affecting the lower lobe of the right lung. He resumed his habits of intemperance directly he was discharged, and was seized a second time with pneumonia, now affecting the upper lobe of the left lung. He walked to the hospital, a distance of three miles, after being attacked, and died by asthenia, fifteen hours after his admission, without coming under my observation.

Convalescence was rapid in all instances, save one in which the pneumonia occurred as a complication of typhoid fever. Exclusive of this instance, the resolution of the affected lung, as shown by the disappearance of the physical signs denoting solidification, was rapid. The resolution was in all instances complete, slight relative dulness on percussion only remaining, which, as is well known, persists for some time after recovery from pneumonia. In all instances the symptoms of the disease, viz., cough, expectoration, etc., completely disappeared. In no instance were the patients left enfeebled, but at the time of discharge they all reported themselves able to return to their avocations, and the majority were day laborers.

The treatment pursued in these cases, as the reader has doubtless remarked, was not complex. The sulphate of quinia was given in tolerably full doses, in the cases in which intermittent fever had previously existed. This remedy was not prescribed with special reference to the pneumonia, but in order to forestall the development of intermittent fever as a complication. Quinia has been extolled as a valuable remedy in pneumonia, irrespective of the liability of the disease to become complicated with intermittent fever if the patient reside in a malarious section, and, especially, if he has been subject to attacks of the latter affection. However this may be, it is certain that the remedy, given in full doses, does not exert an unfavorable influence on the progress of the pneumonia, It is not contra-indicated by this affection. To prevent the development of intermittent fever, and if developed, to arrest the paroxysms as speedily as possible, are important objects of treatment in certain cases of

the disease under consideration. The combination of the two affections often places the patient in imminent danger, when with either affection, singly, his condition would not be serious. Happily, under these circumstances, we possess a special remedy by which we may expect to control one of the affections. This, then, is the leading indication, and the life of the patient may depend on its being promptly and effectively fulfilled. The practitioner who gives precedence to indications derived from the pneumonia, under these circumstances, or who so divides his attention as to fulfil incompletely the leading indication, commits an error which may be fatal to the patient. As a rule, it is well to recognize, at the commencement, a liability to this complication, and to forestall its occurrence, especially when the protective remedy, to say the least, does not interfere with the favorable progress of the pneumonia.

Opium entered more or less into the treatment of these cases. My observations have led me to regard this as a valuable remedy in pneumonia. As a palliative of pain, it fulfils an important indication; for pain, in addition to the suffering which it occassions, determines an afflux of blood to the painful part. This fact is illustrated in neuralgia affecting the supra-obital nerve. During the paroxysm of pain, the eye becomes injected, and the redness rapidly disappears after the pain has been relieved by an opiate. But there is reason to believe that opium exerts a salutary effect beyond the relief of pain. I have repeatedly noted marked diminution in the frequency of the pulse and respirations, in cases of pneumonia, a few hours after the patient had taken full doses of opium. It appears to lessen the perturbatory effects in the economy of the local inflammation, if, indeed, it does not diminish the intensity of the inflammatory action. Some practitioners are deterred from the use of this remedy in pneumonia, by the idea that it interferes with the removal, by expectoration, of the exuded products of inflammation. But how often do we observe the rapid disappearance of the solidification in pneumonia, with slight expectoration, or none whatever! The intra-vesicular exudation is, for the most part, absorbed, not expectorated, a fact not strange when the structure of the cells, and the facility of endosmosis in this situation are considered. Interference with expectoration, therefore if true with respect to the employment of opium in pneumonia, is not a valid objection. The merits of the remedy, however, in this application, must rest on clinical experience; and I cannot but think that this paper will be of some utility, should it serve to remove from the minds of some readers, groundless apprehensions with respect to the free use of opium in pneumonia.

Alcoholic stimulants were employed to a greater or less extent, in the treatment of these cases, and in all the cases the patients were placed on a nutritious diet. The abstract notion that stimulants and sustaining food are inconsistant with the treatment due to local inflammation, is a remnant of Broussaism which still exerts considerable influence on medical practice. It suffices to destroy this notion, to bear in mind the significant injunction of Chomel, viz., *not to treat diseases, but to treat patients affected with disease.* With regard to stimulants, it may be stated, as a rule, that they are indicated in cases of local inflammation, whenever the patient in health is addicted to their use. They cannot with safety be withheld, under these circumstances, if the local inflammation involve, from its seat or intensity, danger to life. But without reference to previous habits, the use of stimulants in the treatment of pneumonia, and of other local inflammations, is important in proportion as it becomes an indication to support the powers of the system. It is, perhaps, an error in medical practice as common and as serious as any, to overlook or depreciate this indication in the management of local diseases. Practically, the existence of this indication and its urgency, in individual cases, may be brought clearly and forcibly before the mind by proposing at the bedside the following questions: Is the patient in danger of death? If death occur, will it take place by asthenia? How imminent is the danger of death by asthenia? Whenever, in the management of disease, the physician has reason to fear that he may lose his patient by asthenia, and in proportion to the tendency to a fatal result by that mode of dying, alcholic stimulants, as a rule, form an important part of the measures indicated, on the same ground that they enter into the treatment of fevers. And this remark applies equally to nutritious diet, viz., the animal essences, etc. Cases of pneumonia occur in which patients are to be saved by pursuing, boldly and perseveringly, the supporting treatment precisely as in cases of low typhus or typhoid fever. And the indications of this plan of treatment may be present early, as well as late in the progress of the disease. The union of delirium tremens, with pneumonia, for example, often places the patient in imminent danger of death by asthenia. The free use of stimulants and concentrated nutriment, is requisite to carry him safely through the perils of this combination. Two of the cases included in the present collection (Nos. 13 and 14) illustrate this remark.

But even when the danger to life is not great, it is an object to support the system with a view to a speedy and rapid resolution of the inflammation. Alcoholic stimulants may not be

required for this object, but it will be promoted by a nutritious diet. The fear of feeding the disease by feeding the patient, is a vulgar notion not warranted by clinical observation. I do not hesitate to allow patients to take food as nutritious in quality and as freely as they desire. The late Dr. Graves was so impressed with the importance of supplying the system with nourishment in febrile diseases, that he desired to be placed as an epitaph on his tomb, "he fed fevers!" He might have extended the circle of diseases in which feeding is important. It is hardly less important, in some instances, speaking metaphorically, to feed pneumonias, than to feed fevers, and, indeed, feeding, as an essential element of supporting treatment, is important in any disease when it is an indication to obviate the tendency to death by asthenia.

With regard to the time when an active supporting plan of treatment (stimulants and concentrated nutriment) is indicated, and the extent to which it is to be carried, I will make but a single additional remark. If there be room for doubt on these points, it is better to err by commencing too soon, and pushing it too far, than by delay and insufficiency; for while it is easy to discontinue or diminish supporting measures before much, if any, actual harm is done, time which has been lost cannot be recovered.

Quinia, opium, alcoholic stimulants and nutritious diet, constituted the treatment in the cases embraced in this report. The grounds for the non-employment of certain therapeutical measures, in these cases, are now to be considered. Blood-letting, general and local, tartar emetic, the veratrum viride, mercury, cathartics, blisters, and other modes of counter-irritation are employed, to a greater or less extent, in the treatment of pneumonia. None of these remedies, however, entered into the treatment of these cases. This fact, without explanation, might lead to erroneous inferences as regards the views of the writer.

Blood-letting in pneumonia has, of late, been much discussed. I have contributed my mite towards this discussion,* and do not propose to enter upon it in this paper. I will simply remark, that, in my opinion, it is an error to assume blood-letting to be never useful in pneumonia, albeit it is a far greater error to advocate the indiscriminate employment of this spoliative measure in that affection. The propriety of blood-letting, however, is rarely a question in hospital cases of pneumonia. In the great majority of instances when patients are admitted into an hospital, the disease has advanced to the second stage; one or more lobes

* Report on Blood letting in Pneumonia, *Buffalo Medical Journal*, vol. xi. 1856. Page 288.

are solidified, and, under these circumstances, the abstraction of blood will, in general, only tend to retard resolution. Had these cases been under observation from the commencement of the disease, it is possible that blood-letting might have been indicated in some instances, not with a view to arrest the inflammatory action, nor to limit its extent, nor to lessen the amount of exuded products; but to diminish the intensity of symptomatic febrile movement, relieving the heart of over-accumulation of blood in its cavities, and consequent over-tasking of its powers. With this limited view of blood-letting, making due allowance for its evils, it is indicated in only a small proportion even of the cases of pneumonia which come under observation at the onset of the disease.

The tartar emetic and veratrum viride undoubtedly control, in a marked degree, the frequency of the heart's action, and, so far, diminish, for the time, symptomatic febrile movement. It remains, however, to be determined, to what extent this effect is important with reference to the inflammatory process and resolution. We can at this day understand how Laennec was deceived in attributing the rapid removal of the exudation in pneumonia to the influence of tartar emetic; for it had not then been observed, as it has been since his day, that the exudation disappears, in some instances, quite as rapidly without any treatment. These cardiac sedatives, if useful when the symptomatic febrile movement is intense, are certainly not indicated when the action of the heart is but slightly or moderately increased, as in a pretty large proportion of the cases of pneumonia in which the affection is limited to a single lobe, especially after exudation has taken place.

The action of mercury has been considered as useful in two ways in pneumonia, viz., limiting the amount of exudation and promoting its absorption. With reference to the first of these supposed effects, the exudation in pneumonia generally takes place, to its fullest extent, before mercurialization can be produced. With reference to the second effect, the exudation is absorbed, in favorable cases, quite rapidly without mercurialization. Without, therefore, presuming to deny altogether the so-called anti-plastic and the sorbefacient powers of mercury, I believe that it is a remedy generally uncalled for in the treatment of pneumonia. The occurrence of salivation at the time of convalescence, is, to say the least, an inconvenience which, if not necessary, it is desirable to avoid. Having for many years relinquished the use of this remedy with reference to its special or constitutional effects in treating this disease, I am satisfied that it may with safety and advantage be dispensed with.

Cathartics, as a means of depletion during the early stage of pneumonia, may be indicated. If adequate to fulfil the object of depletion, they are certainly to be preferred to blood-letting, since they do not involve an expenditure of the organized constituents of the blood, and are therefore not spoliative. Except for this purpose, it may fairly be doubted whether they are called for in pneumonia. They conflict with supporting measures when these are indicated. That they are not important with reference to the absorption of the exudation, is sufficiently illustrated by the cases reported in this paper. In one of the cases (No. 15) considerable liquid effusion, together with the solidifying deposit, disappeared in a few days, although, inadvertently, the bowels had been permitted to remain constipated for a week.

Blisters and other modes of active counter-irritation, when employed in pneumonia, are, of course, considered as acting usefully by way of revulsion. I suppose that no judicious physician attributes to them this action during the first stage of the disease. To employ them in this stage is to add a certain amount of cutaneous inflammation to the existing pulmonary inflammation. After solidification has taken place, all the results to which the inflammation may be expected to give rise, have already occurred. Revulsion, then, where it is attainable, ceases to be an indication. Is it imagined that a traumatic inflammation of the skin diminishes the afflux of blood to the affected lung? But the affected lung in the second stage of pneumonia is already anæmic! The inconvenience occasioned by blisters to the patient is considerable; they are also a source of inconvenience to the practitioner, by interfering with the daily examinations of the chest in order to determine the physical condition of the affected lung. These remarks, of course, do not apply to mild revulsive applications, such as sinapisms, and to fomentations which doubtless possess a certain value in the treatment of pneumonia.

The several therapeutical measures, thus, which have been enumerated, as not entering into the treatment of the cases of pneumonia now reported, were not employed, because, with reference to some of them, the disease did not come under observation sufficiently early to find the indications for their use, or, the indications existing in a certain proportion of cases only, they did not happen to be present in these cases; and with reference to other of the measures mentioned, their value and propriety in the disease under consideration are, to say the least, doubtful. As the modern conservative surgeon rejects the doctrine contained in the old aphorism, *melius anceps remedium*

quam nullum; so the conservative physician should refuse to resort to remedies which are either unnecessary or of questionable utility, except in the cases in which a deviation from this rule is warranted for experimental observation. I cannot but think that the practice of medicine would gain much if practitioners, instead of deliberating at the bedside as to whether this or that potent remedy is called for, were oftener in the habit of propounding to themselves this inquiry: Are there present any clear indications for interference?

The last remark suggests a point of fundamental importance in the treatment of this, as well as other acute diseases, viz., its intrinsic tendency as regards termination. Does pneumonia, in itself, tend to destroy life? We might answer this question by citing the results as reported by different practitioners, the disease being treated by different and sometimes quite opposite measures. But the clinical study of the disease uninfluenced by medication, pursued of late years on an extended scale, enables us to answer the question more directly. The results reported by Dr. Dietl, and others, in which, in a large number of cases, no active remedies were employed, show that pneumonia, limited to a single lobe, and uncomplicated, ends in recovery in the vast majority of instances. This statement is, of course, exclusive of the epidemic forms of the disease; but it is probable that the fatality of epidemic pneumonia depends generally on some important complication, or associated affection. A series of cases of sporadic, uncomplicated pneumonia, therefore, ending favorably, under a certain plan of treatment, does not afford adequate evidence that the success was due to the treatment. It would be a fairer conclusion to impute the success to the intrinsic tendency of the disease to recovery. On the other hand, a series of cases in which the fatal cases were not few, would justify, at least, a suspicion that the want of success might be due to the treatment. It would, however, be an error to suppose that because pneumonia, under favorable hygienic circumstances, generally ends in recovery without medicinal treatment, that medication is consequently never called for. Better far, indeed, no treatment than injudicious interference; but judicious treatment may nevertheless save some lives which would be lost under the expectant plan. Moreover, there are objects of treatment in disease, in addition to recovery. Relief of distressing symptoms during the progress of disease; a cure *cito et jucunde* as well as sure; a convalescence rapid, and a recovery complete, leaving the powers of the body not permanently impaired—these are important ends to be kept in view in medical practice. The natural history of a disease, and its

intrinsic tendency to life or death, constitute the true point of departure for the study of therapeutics in relation to that disease; but medical art should not be content with being able to state the chances of recovery, even when the chances are vastly in favor of this termination.—*American Journal of the Medical Sciences.*

RETROSPECT ON THE USE OF RAW MEAT IN THE DIARRHŒA OF WEANED CHILDREN.

BY DR. J. F. WEISSE, DIRECTOR OF THE CHILDREN'S HOSPITAL AT ST. PETERSBURGH.

Seventeen years have now elapsed since I first directed the attention of the profession to this invaluable remedy in the above disease;* but it was not until I had five years later treated of the subject at greater length,† that it came into more general use. Soon after the publication of the latter paper, I received from the esteemed editor of the Journal just now quoted, Dr. Behrend, of Berlin, a letter containing the following passage: "You have no idea what interest your communication on diarrhœa ablactatorum and on the use of raw meat has excited; we now use the remedy extensively."

Not long after, Dr. Behrend inserted in the sixth volume of his Journal a letter of M. Marotte, Physician of the Central Bureau of the Parisian Hospitals, from which it appeared that this subject had attracted great attention also in the French metropolis. The author of this letter, which is addressed to Dr. Trousseau, has moreover had the kindness to suggest a theory explanatory of the results I have obtained. From this time the meat cure was generally received, and its utility admitted on all sides. Of the numerous favorable reports recently published, I cannot forbear literally transcribing that contributed by Dr. Eichelberg, because the author has given to the subject the appreciation it deserves. He says: "In consequence of the shortness of the time which has elapsed since this article of diet was first recommended, I have, it is true, only a limited number of observations (somewhat more than twenty) before me, but they all corroborate the remarkable advantages of the plan proposed. It is only in exceptional instances that such children refuse raw meat—the great majority, in fact, consume it with manifest relish. I have observed two very striking cases where

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* Oppenheim's Journal f. d. gesammte Medizin, Bd. xiii. page 393. Hamburgh, 1840.

† Journal f. Kinderkrankheiten, Bd. iv. pp. 99–104. Berlin, 1845.

the children for several weeks readily partook of this food with the most beneficial results, and at the end of that time suddenly refused it. Natural instinct seems in such examples to be unmistakable, as in the case of sick dogs, which eat grass. The want of osmazome made the children greedily consume the raw meat, but, with the cessation of the want, the desire for that principle disappeared."*

As Herr Eichelberg, moreover, has expressly indicated the diarrhœa which sets in soon after the weaning of children (according to my observations usually in two or three weeks after that event), as the affection in which the raw meat cure is attended with certain success, so I have also, in recommending this mode of treatment, confined myself to the same disease; and now, after nearly twenty years' experience, maintain, that raw, scraped beef, to the exclusion of all other medication, is a true specific in this destructive diarrhœa. I therefore consider a remark made by Charles Hogg, in recommending the well-known "beef-tea" of the English, to be quite erroneous. Thus he says: "Beef-tea is an excellent, nourishing, and easily digestible article of food, and completely replaces the juice of meat recommended by Weisse, of St. Petersburgh, obtained by scraping raw flesh."† I have in raw beef discovered, not an article of food for children, but a remedy against the diarrhœa in question; nor have I spoken of the juice to be obtained by scraping meat, but the muscular substance itself must be given to the children, having, however, previously been sufficiently comminuted, either by scraping with a knife, or by means of a grater, in order that it may be swallowed without trouble. But the principal point is, that the muscular substance itself, and not merely its juice, should be conveyed into the digestive tube. The English beef-tea has as little beneficial effect on diarrhœa ablactatorum as Liebig's excellent decoction of meat. Both these fluid aliments appear, precisely because they are fluid, to pass too quickly through the intestinal canal; while the meat in substance remains longer in the tube, and by its mechanical irritation may stimulate digestion, and it may, perhaps, also neutralize the acidity of the gastric juice. Nor can I participate in Dr. Beer's sanguine hope that raw grated beef may be destined one day to dislodge cod-liver oil from the Materia Medica.‡ Each of these excellent remedies has its definite sphere of medical action in the diseases of children; raw beef in the diarrhœa

* Journal f. Kinderkrankheiten, Bd. iv. pp. 99–104. Berlin, 1845.

† Journal f. Kinderkrankheiten, Bd. xiv. p. 113, in the notice of Hogg's treatise "On the Management of Infancy," etc.

‡ Journal f. Kinderkrankheiten, Bd. xiv. p. 238.

ablactatorum, cod-liver oil in rachitic affections, with and without atrophy.

In St. Petersburgh, the meat cure in the affection of children under consideration has become, so to speak, completely naturalized; and this has taken place rather through oral communication, and in consequence of the favorable results of the treatment, than from any paper or essay, as I have never published anything in that capital upon the subject. Most of my colleagues have now for several years made use of it, and they all assure me that they have obtained very satisfactory results, even in cases where the employment of other established remedies appeared to hold out no hope of cure. I have myself seen this treatment adopted in about two hundred children, and, in the majority, with the desired effect, provided recourse was had to it at the proper time. I say at the proper time, for if the disease has already advanced too far, and, particularly, if it has assumed the form of the so-called gastro-malaria, it is only in exceptional instances that we shall obtain a cure. But even in this case there is no other remedy so calculated to allay the most tormenting symptoms, the tantalizing thirst, and the vomiting, as the raw beef. This beneficial effect is produced even after a raw meal.

But it has recently been stated, as I have already publicly remarked,* that in many children saved by the meat cure, tape-worm, and it is worthy of note, always the tænia solium, that is precisely the species which is not indigenous in St. Petersburgh, has shown itself. A Dr. Braun† has felt himself called upon to question this statement; two years later, however, an undoubted authority on this subject appeared in favor of the facts reported by me. Professor D. Von Siebold of Munich, says, in the last page of his interesting work, "Ueber die Band und Blasenwuemer," Leipsic, 1854: "We can no longer be surprised, or consider their statements fabulous, when physicians report that tape-worms have been found in certain patients after the use of raw meat prescribed as a remedy;" and in the note upon this passage, he adds: "Compare on this subject Weisse's communications, which, notwithstanding Braun's objections, are worthy of all credit." Herr Von Siebold directs particular attention to the fact that in every instance it was the tænia solium which was passed; and he considers it probable that this species of tape-worm, which is not indigenous in St. Petersburgh, may have been conveyed thither

* Journal f. Kinderkrankheiten, Bd. xvi. p. 384. 1851.

† Ibid., Bd. xviii. p. 78, 1852; and in Froriep's Togesberichten. 1852.

in the undeveloped state in the flesh of oxen, brought from Tscherkask and Podolia.

Only a few weeks before my departure from St. Petersburgh, in June of the present year, a tape-worm, more than four feet long, was sent to me by a colleague, to whom I had warmly recommended the meat cure in the case of a child, aged eighteen months, who had suffered from the diarrhœa in question, and was already very much run down, which worm was passed after the use of the ethereal oil of male fern. This remedy was administered in consequence of the child, who had long ceased to get the raw meat, and was cured of the diarrhœa, having repeatedly passed joints of tape-worm. The attendant physician had already correctly diagnosed the worm to be the tænia solium; I found that it was voided with the head, on which the suckers were plainly distinguishable under the microscope.

I should not omit to state, that in the Children's Hospital under my care, in the diarrhœas of older children, into which the element of dentition no longer enters, and which so largely contribute to fill the lists of mortality, raw meat has been repeatedly and unsuccessfully tried. These cases of diarrhœa generally depend upon ulcerations in the intestinal canal.

Lastly, I may be allowed to call the attention of the meeting to as palatable a remedy as raw beef, in the lientery of adults; I allude to oysters. In two cases, an amount of experience, which, I must admit, goes for nothing, I saw the patients cured by the moderate use of these mollusca. From eight to twelve oysters were taken daily in two meals.—*Dublin Quarterly Journal*, Feb., 1858, from *Journal fur Kinderkrankheiten*, Jan. and Feb., 1858.

EPILEPSY, IN WHICH CASTRATION WAS PERFORMED.

Mr. C. Holthouse read before the Royal Medical and Chirurgical Society (March 22, 1859) an account of a remarkable case of epilepsy, in which he castrated the patient, an operation which has excited much interest and comment abroad, and which we cannot but consider as indefensible. The author commenced his paper by citing ten cases of epilepsy, in which castration is said to have cured the disease. In the first case, the testicles were removed in consequence of disease of those organs. In the second case, one testicle was removed on account of an accident to the organ. Both patients were epileptic previous to the affection of the testicles; and their removal, though not done with the view of curing the epilepsy, inciden-

tally did so. These cases were related to Dr. M'Kinley, of Tennessee, U. S., by a Mr. M'Gavoc, of the British Navy, and are published in the *American Medical Gazette*, July, 1855, along with seven other cases in which castration was performed for the express purpose of curing epilepsy. Of these seven cases, two occurred in the practice of Dr. M'Kinley himself; two in the practice of Dr. Talbot, of Missouri; and one of that of Dr. Hacker, of Louisiana. The tenth case occurred in Germany, the operation having been performed by Holz, under the direction of Joseph Frank, and it is recorded in the *Praxeos Medicæ Universæ Precepta*, vol. ii. chap. 11. Mr. Holthouse stated that he brought his case before the notice of the society partly because the operation was not attended with the same favorable results as in the cases referred to, and partly for the purpose of removing the misapprehension which prevails in reference to it. The case of the patient, very nearly as taken by Mr. Ponsonby K. Adair, the house-surgeon of the Westminster Hospital, was then read; after which the author proceeded to state the grounds on which he was induced to operate in the following words: "Reasons which induced me to operate.—1. The patient's urgent request. 2. The simple and dangerless character of the operation. 3. The knowledge that epilepsy had been cured by castration. 4. The possibility, if not probability, that it might be in the present case. Lastly, I was further influenced by a consideration of the history of the case, which showed, first, that every remedy hitherto tried had failed; and, secondly, that there was a close connection between the origin and severity of the fits and the condition of the sexual organs. Whatever weight may be attached to the 2d, 3d, and 4th reasons, I confess I should not have felt myself justified in recommending a proceeding of which I had no personal experience, nor any knowledge of the individuals who had adopted it; but although these considerations would not have sufficed to make me recommend the operation, they had their influence in inducing me to consent to its performance. It will be obvious, then, that I was chiefly influenced by the wishes of the patient. The question, therefore, arises, how far may a patient's wishes as respects treatment be acceded to, and on what point must a physician or surgeon satisfy himself before acting on a patient's suggestion? The following seem to me to be essential: 1st, he must satisfy himself that the patient is of mature age; 2dly, that he is of sound mind, not the subject of hallucinations or a monomaniac; 3dly, that his proposition is not unreasonable; and lastly, that the remedy proposed is not a dangerous one. Now, the only points

on which I apprehend there can be any difference of opinion are—1st, as to the sanity of the patient; and 2dly, as to the reasonableness of the treatment adopted. I shall, therefore, address myself to these two points. And first, as to the sanity of the patient, it has been asserted by many that the mere fact of the man having had epilepsy for so long a period was presumptive evidence that his mind was unsound, and the pertinacity with which he begged to be castrated was considered a sufficient proof that this opinion was not unfounded. Mania, I was reminded, sometimes takes this form, and lunatics have been known to castrate themselves. Now, I am free to admit that if such a desire existed, or such a request were made on the part of any individual without adequate motive, there would be legitimate grounds for believing that he was insane, or at least, laboring under an insane delusion. But was there no adequate motive in the present case? What are the facts? The patient is walking in one of the streets of New York, when he is stopped by a physician of eminence and repute, the editor of a medical journal, who informs him he has just received a communication from one of his correspondents, in which castration is recommended for certain forms of epilepsy attended with great venereal excitement, and that nine cases had been successfully treated by this method. The letter containing this announcement Dr. Reese reads to him, and advises him to submit to the operation, at the same time offering him an introduction to Prof. Parker, Surgeon of the Bellevue Hospital, and Professor of Surgery at the University of New York, and one of the most eminent surgeons in that city. A consultation is held between Dr. Reese and Prof. Parker, when the latter having been made acquainted with the history of the case, and had his attention called to the cases published in Dr. Reese's journal, consents to perform it, and is only deterred from doing so by the interposition of a medical relative of the patient, who was of opinion that no benefit would result. From this period is to be dated the desire of the patient to be castrated; and believing that he had at last found a remedy for his disease, is it to be wondered at that he should be earnest and urgent in his desire to avail himself of it? Moreover, when he called to mind the origin of his fits—their recurrence on his first marriage, after they had been absent for the two preceding years—their exacerbation on his second marriage, as well as under any sexual excitement—and his frequent nocturnal pollutions—could he dissociate the fits from the sexual organs? And was not the fact of his thus associating them a proof rather of his sanity than of his insanity? I appeal to the candor of the society whether there

is the least analogy between a man desiring castration under such circumstances, and the morbid craving for mutilation of a madman? I would further remark, that the removal of the exciting cause of epilepsy, as indeed of any other disease, has been long recognized as the established rule of practice; and, although it is not always possible to determine what this cause may be, I hold it to be generally admitted that we are justified in acting on a fair presumption of the cause, though such presumption must necessarily fall short of actual proof. Acting on this presumption, epileptic patients have been subjected to the dangerous operation of trephining, sometimes with and sometimes without success. Acting on such presumption, Wardrop cured a case of eccentric epilepsy, by removing a joint of a healthy finger. Tissot relates a case where a similar good result followed amputation of the great toe. Dr. W. H. Edwards, of Virginia, U. S., cites another, in which the leg was amputated a few inches below the knee-joint; and several similar or analogous examples are on record. It must be obvious, then, that in all of these cases the epilepsy was of eccentric origin, and that the great nervous centres were only affected secondarily and sympathetically. Now, the whole history of the patient whose case forms the subject of this paper, pointed to the abuse of the reproductive organs as the original source and the subsequent exciter of the epileptic paroxysms; indeed, the early abuse to which they had been subjected had so increased their functional activity that they were habitually in a state of abnormal excitement, and this reacting on the brain prevented that repose of the organ so favorable, if not essential, to its recovery, and constantly tended to counteract the effect of other remedial agents. But I am assuming here that the brain is affected; and indeed, in so long standing a case, it would be absurd to suppose that this organ was not in some measure damaged, although it may not originally have been the starting-point of the disease. I am aware it may be objected that the excitement of the genital organs was the effect and not the cause of disease of the brain, and that the origin both of the fits and of the sexual excitement must be referred to cerebral disorder. Now, though it may not be possible to prove the negative of this, there are so many facts which demonstrate the influence of the reproductive organs over the cerebral functions, that it is no unfair inference to suppose they may have thus acted in the present case. I hold, then, that the removal of all extrinsic sources of excitement from a disordered brain is both reasonable and proper; and believing, as from the history of the case I was entitled to do, that the reproductive or-

gans of this patient did exercise an injurious influence on his brain—seeing, moreover, that precedents were not wanting where the removal of the testicles, under like circumstances, had been attended with success—I say, taking into consideration all these circumstances, I maintain that the request of the patient was not unreasonable, and that it was perfectly justifiable to accede to his wishes. The results of the operation are, so far as can be judged of at present, certainly not such as the patient anticipated: the fits continue to recur with much the same frequency, and are of a similar character."

Mr. Solly said he saw the patient in St. Thomas' Hospital, where a consultation was held, and Mr. Simon was inclined to yield to the man's wishes, against the general feelings of his colleagues. He (Mr. Solly) suggested, that if any operation was performed, the spermatic artery should be tied on one side, and if that proved in any way successful, a similar operation might be performed on the opposite side. His reason for making the suggestion was, that castration was by no means a harmless operation, or unattended with danger. The last patient whom Mr. Green castrated died within a short time after the operation.

Mr. Holmes Coote said that the patient, having enjoyed the hospitalities of the public institutions in France and Germany, might now be seen any day in St. Bartholomew's walking about and airing himself, in the conscious dignity of having been castrated. It appeared to him that the man was a monomaniac. In an institution with which he was connected, Bethlehem Hospital, if all the operations were performed which the patients desired there would be a strange collection of individuals. One man desired to have his throat cut; another wished to be hung, and a third cut off his penis. In the case of a young woman subject to erotic monomania, a surgeon consented, at her request, to excise the clitoris, with the same effect as in Mr. Holthouse's case. The disease was really in the brain, and could only be relieved in an asylum under proper supervision.

Dr. Schuloff stated that eunuchs in the east were found to suffer from epileptic fits.

Dr. Webster had no doubt that Mr. Holthouse's patient was of unsound mind, and the circumstance of his strong desire to be castrated he regarded as a striking indication of that fact. He did not think the surgeon was justified in performing the operation simply because the patient requested it. The statement of the American cases, however, appeared to be sufficient to justify the operation. Long-standing epilepsy was generally accompanied with unsoundness of mind.

Mr. Acton said there were many instances recorded of *operations de complaisance*, so that Mr. Holthouse was not without precedents for his justification. He hoped, however, that surgeons would be prevented from performing an operation of the kind detailed, seeing that the results were so unsatisfactory. He wondered that no one appeared to have suggested the cauterization of the urethra, which some persons considered useful in such affections.

Mr. Hale Thompson had seen the patient in Westminster Hospital, and had no doubt of his insanity. Had he heard of cauterization no doubt he would have proposed it. He had heard more false logic in the paper than he had ever heard in the society before; and he suggested whether it would not be better to follow the rules of practice laid down by eminent surgeons in this country, rather than adopt ill-understood American eccentricities. When the operation was performed he (Mr. Thompson) protested against it, the testicles being perfectly sound, and left the theatre rather than sanction by his presence such a proceeding. The operation was not without danger, and the man suffered fearfully from hemorrhage for two hours.

Dr. Ogle believed the man to be a monomaniac, and he had seen a letter from Paris respecting him, in which it was stated "the physicians think him stark mad." With regard to the experiments upon the lower animals, it was found that if they were castrated before puberty, their sexual desire was entirely destroyed, but was not the case if the operation was performed at a later period. Cases were on record in which children had been begotten after castration, and it was known that some eunuchs had harems of their own; and it had been stated that a monarch of Persia, finding that the removal of the testes from eunuchs did not destroy desire, ordered that the entire organ should be removed. Juvenal, also, in his sixth satire, had a passage in which he showed that the women were in the habit of indulging themselves with eunuchs.—*Med. Times and Gazette*, April 2, 1859.

BOOK AND PAMPHLET NOTICES.

ANATOMY, DESCRIPTIVE AND SURGICAL. By HENRY GRAY, F. R. S., lecturer on Anatomy at St. George's Hospital. The Drawings by H. V. CARTER, M.D, late demonstrator of Anatomy at St. George's Hospital. The Dissections jointly by the author and Dr. Carter. With 363 engravings on wood. Philadelphia: Blanchard & Lea. 1859.

This is a republication by Blanchard & Lea, of a London book, on descriptive and surgical anatomy. The striking feature of the work is in the plan of illustrating the text.

In the cuts, which are numerous and of large size, the old fashioned system of numeration and foot references has been discarded, and in its stead has been substituted printing the name of each anatomical part upon the representation of the part itself. The figure thus explains itself. There are those who object to such plates, on the ground that it so simplifies the subject that it will prevent the student from prosecuting his anatomical studies upon that only reliable book the *cadaver*. But we do not think so.

We cannot but regard the method of illustrating adopted in this work as possessing many advantages to the student of anatomy.

Since the publication of illustrated works on anatomy and manuals, practical anatomy has actually increased in popularity. However, it is as essentially a diagramatic work, and its value will be estimated differently by different readers. Another feature of the work which should not be overlooked, is the application of human anatomy to practical surgery. We find the following in the preface:

"One of the chief objects of the author has been to induce the student to apply his anatomical knowledge to the more practical points in surgery, by introducing in small type, under each subdivision of the work such observations as show the necessity of an accurate knowledge of the part under examination."

The study of anatomy and surgery should go hand in hand; but we have no work in which the student can find the details of

descriptive anatomy, combined at the same time with a concise account of the practical surgical relations of the parts.

The present volume is intended to supply this deficiency. The publishers have produced the American edition in an unexceptionable manner.

For sale by W. B. Keen, 146 Lake street, Chicago.

URINARY DEPOSITS, DIAGNOSIS, PATHOLOGY, AND THERAPEUTICAL INDICATIONS. By GOLDING BIRD, M.D., F.R.S. Edited by EDMUND LLOYD BIRKET, M.D., etc. A new American, from the fifth London edition. With 80 illustrations on wood. Philadelphia: Blanchard & Lea. 1859.

The profession, we think, have shown their appreciation of this work, by calling for five editions of it in London, and three in this country. The present volume, a new American, from the fifth London edition, has been revised and brought up to the present period. This work is one of very great practical value in investigating urinary diseases, and they are of such grave importance, that every physician ought to possess every possible aid in the diagnosis and treatment; and we know of no work which in so small a space will afford him so much material aid. The work is fully illustrated with finely executed wood cuts, and is every way creditable to the publisher.

For sale by W. B. Keen, 146 Lake street, Chicago.

A PAPER ON THE MANAGEMENT OF THE SHOULDERS IN EXAMINATION OF THE CHEST, INCLUDING A NEW PHYSICAL SIGN. Read before the New York Academy of Medicine. By JOHN W. CORSON, M.D., lecturer on diseases of the Chest, etc. (From the *New York Journal of Medicine* for March, 1859.) New York: H. Bailliere, 290 Broadway.

The object of this paper is to set forth the importance of the *position* of the shoulders during examination of the chest. The process in each case involves three principles—*thinning*, condensing and tightening; and is illustrated by the simple experiment of placing one fore-arm of a muscular man behind his back, while the other hangs loosely by his side, when the sound especially of percussion will be heightened below the clavicle of the stretched side in front.

Dr. Corson says, "from extensive trial, we firmly believe that, simple as they may seem, this management of the shoulders, these expedients for thinning, condensing and tightening the fleshy walls of the chest add fully one-third to our power of detecting the earliest signs of consumption."

Contributions to Operative Surgery and Surgical Pathology. By J. W. Carnochan, Professor of Surgery in the New York Medical College; Surgeon in chief to the State Emigrant Hospital, etc. With illustrations drawn from nature. Philadelphia: Lindsay & Blackiston. 1859.

The above contributions are to be published in a series of ten numbers, to be issued quarterly. The second number of the series, containing 44 pages, of quarto size, and complete in itself, has been placed upon our table.

It contains a report of the following cases, with illustrations:

Case of Exsection of entire ulna.

Remarks on Neuralgia of the Face, with a case. Exsection of the trunk of the second branch of the fifth pair of nerves beyond the ganglion of Meckel, for severe neuralgia of the face; with three cases.

Terms of subscription, each number, 75 cents, to be paid for on delivery.

For sale at W. B. Keen's, 146 Lake street, Chicago.

Forty-Second Annual Report on the State of the Asylum for the Relief of Persons deprived of the Use of their Reason. Published by direction of Contributors. March, 1859. Philadelphia.

Transactions of the State Medical Society, of Michigan, at its Seventh Annual Meeting, held at Lansing, January 19th, 1859.

Constitution and By-Laws of the Chicago Academy of Medical Sciences. Adopted March, 1859.

A Lecture on Idiocy. By John M. Galt, M.D., Superintendent and Physician of the Eastern Lunatic Asylum of Virginia, at Williamsburg.

The title of this lecture may not, to some, give a promise of either much pleasure or profit in the perusal, as most men think

idiots insusceptible of improvement by treatment, either physical, moral or intellectual. However, Dr. Galt thinks otherwise, and he wishes to show that, from the mere fact of institutions for this humane object being now multiplied over Europe, a great deal of scepticism which the subject encountered is removed. He notices a recent article in the *Medical Times and Gazette*, by Mr. Hutchinson, containing a report of the mode of procedure adopted in such cases at the hospice of Abendborg, under the care of a physician, who rejoices in the not very euphonic cognomen of Guggenbuhl. We presume the gentleman proceeds in the treatment on the supposition, shared by others, that in the great majority of his patients, their melancholy condition of mind depends on a torpor of its faculties, and that these only require awakening. This, at least, the details of treatment, which our space will not admit of, would lead us to infer. Certainly, Dr. Guggenbuhl has ample opportunities for observation and testing his practice, as there are, at least, 10,000 cretins, all idiots, in the Swiss Cantons; and he has, accordingly, profited by such, as his reputation is quite established in this department.

The connection, still ill-understood, between this state of mind and a residence in mountainous regions, so often insisted on by writers, is remarkable; but, like other pathological conditions of our nature, we infer this to be but one link in the chain of events antecedent to and productive of the affection under consideration.

We are told by Dr. Galt, that there are but 35,000 idiots in the United States—a fact, if well ascertained, consolatory, when we compare our lot in that respect with what we learn of Savoy, and the three departments of France—Isere, Basses, and Haute Alps, where, in the year 1850, no less than 54,000 of the inhabitants, or about 5 per cent. of the whole population, estimated at nearly a million, were idiots.

MISCELLANEOUS MEDICAL INTELLIGENCE.

PROCEEDINGS OF THE ROCK RIVER UNION MEDICAL SOCIETY.

The annual meeting of the Society was held at Sterling, June 15th.

The President, Dr. J. A. Jackson, being absent, Dr. D. Williams, of Sterling, was chosen President *pro tem.*

Proceedings of last meeting read and approved. Constitution read.

On motion, Dr. Wm. J. Galt of Sterling was admitted a member of the Society.

Dr. G. W. Phillips, chairman of the Committee on Practical Medicine, made a report, which, on motion, was adopted, and the Secretary directed to place a copy of it on file.

A discussion arose in regard to that portion of the report, in relation to the "Effects of Alcoholic drinks in Tuberculosis," or upon those predisposed to the disease.

The discussion was participated in by Drs. Abbott, Hudson and Phillips.

A case of Rabies having recently occurred at Dixon, was reported by Dr. Abbott. The patient, an Irishman; occupation, well-digger; age about fifty. He was bitten in the hand by a rabid dog six weeks before the disease manifested itself. Symptoms: the attack commenced with chilly sensations, and confusion of intellect, soon followed by slight spasms of the muscles of respiration and deglutition upon attempting to swallow food or drink; a constant sense of constriction about the throat and chest; respiration but little affected; pulse rather weak and contracted; occasionally would swallow water by bringing the cup up behind him, so as not to see it; third, vomiting and spitting of viscid mucus; mind clear, but irritable; he showed no disposition to injure any one; the bitten limb was painful, and was partially paralyzed; the least breath of air was annoying to him; general convulsions did not occur; he died while sitting in his chair, thirty-six hours from attack.

He was seen by the medical fraternity of Dixon, but refused all treatment except what was given him by a root doctor.

Drs. Royer and Hudson stated, that there had been three cases of persons bitten by mad dogs, at Sterling, within a few days. The treatment made use of, was excision of bitten part, and application of caustic.

Dr. Hudson was appointed to make a report upon—"The curative effects of opium in febrile and inflammatory diseases," said, he had prepared a paper, but not having a copy, gave a synopsis of the report.

Dr. Phillips reported a case of mortification of the lungs, occurring as a primary disease, not being preceded by a single symptom common to acute inflammation.

The Secretary directed to place a copy on file.

On motion of Dr. Phillips, a committee of three were appointed, consisting of Drs. Donaldson, Phillips, and Royer, to revise the present fee-bill, and report at next meeting.

Dr. Donaldson introduced the subject of scabies, the pathology and treatment of which was discussed by Drs. Donaldson, Abbott and Phillips.

The officers elected for the ensuing year, were:—For President, Dr. H. C. Donaldson, of Como; Vice-President, Dr. Moses M. Royer, of Sterling; Secretary, Dr. G. W. Phillips, of Dixon; Treasurer, Dr. H. S. Hudson, of Sterling.

On motion of Dr. Hudson, the President and Secretary were authorized to appoint delegates to the National Medical Association and State Medical Society.

On motion of Dr. Phillips, Dr. A. S. Hudson was appointed to deliver the popular address at next meeting.

On motion of Dr. Hudson, Dixon was selected as the place for holding the next semi-annual meeting.

Dr. J. B. Porter, who was appointed to deliver the popular address at this meeting, being absent, no address was forthcoming.

On motion of Dr. Hudson, the Secretary was directed to

prepare a synopsis of the proceedings of the meeting, and send it for publication in *Chicago Medical Journal.*

On motion, adjourned.

G. W. PHILLIPS, *Secretary.*

AN INAUGURAL DISSERTATION UPON THE AVULSION OF THE ARM AND SCAPULA.

BY H. B. HORLBECK, OF CHARLESTON, S. C.

This report includes the history of four cases of this very formidable injury, and illustrates what we should not be ready to expect, that the system submits to the rending away so important a part of the body as the arm and scapula, and the consequent laceration of muscles, nerves and vessels, with a much less sensible disturbance than we often witness after injuries that in comparison appear trivial; for in these cases there was said to be "almost entire absence of nervous shock, the harmony of the great functions of life being almost undisturbed." The explanation offered for this phenomenon is, "that all the bruised and contused tissues have been entirely removed, and only those of a sound and healthy nature left." If this is the true solution of the alleged fact, would it not argue strongly in favor of immediate amputation after severe injuries? thus including the operation and injury in a single shock, and freeing the system at once from all "contused tissue." Of these four cases, all recovered, two with, and two without ligature of the wounded artery; but, in reading an account of them, we are led to question the necessity of the use of the ligature in either case, and to think that the danger to the patient was augmented by the disturbance of the wound, which was necessary in order to secure the vessel. The explanation given of the well known fact, that a lacerated artery does not emit much blood, is clear and undoubtedly correct, and is to be sought in the anatomical formation of those vessels. When traction is put upon an artery sufficient to tear it asunder, its internal and middle coats, whose powers of assistance are slight, first give way and retract; the external coat, composed

of condensed cellular issue, is elongated, and, finally parting, closes over the divided end of the middle and interior coats, and thus retains a coagulation of blood up to the point where the first vessel is given off; in this manner fulfilling in every particular the purposes of a ligature. These cases are interesting, as demonstrating the ability of the system to surmount the effect of most extensive mutilation, and will serve to put us on our guard against unnecessary interference for the purpose of ligating vessels, though they be of considerable magnitude, if they are torn across and do not bleed.—*Charleston Medical Journal.*

ON THE HYSTEROTOME FOR THE CURE OF DYSMENORRHŒA, INVENTED BY DR. O. A. WHITE, OF CHARLESTON, S. C.

[From the *Charleston Medical Journal and Review.*]

The author of this article assumes the cause of Dysmenorrhea to be a "preternatural narrowing of the uterine canal," which in some cases is doubtless true, and it then generally depends upon defective development of the neck of the uterus. He then proceeds to recommend in these cases, as a means of cure, incisions within the neck of the uterus, which, he claims, can be most easily and efficiently made by the use of his hysterotome, which is an instrument similar to a male catheter, that can be readily introduced to the desired extent, and then by means of a screw, two blades can be made to project from opposite sides, which make the incisions as the instrument is withdrawn. After which, by the use of sponge tents for a short time, the part is kept dilated.

Now, is it philosophical to treat a part in such a condition by incisions? the first effect of which would be to abstract a certain amount of blood from the part in which there is already a defective circulation. Would we treat any other atrophied part in this way? On the contrary, the plan suggested long ago by Dr. McIntosh is doubtless the correct one, which is, to carefully and repeatedly dilate the os and cervix uteri with bougies of various sizes. This is in accordance with the principle well

understood by every tyro in the profession, viz., that a part is increased in size and power by exercise. Besides the plan of treatment, proposed in the paper, for these cases, must be injurious on another account, the cicatrices which would necessarily follow the incisions, would, by contracting, as they always do, render still narrower the passage already too nearly closed, and the author's attempt to meet this objection by the temporary use of sponge tents, must fail, for the contraction of a cicatrix continues even after the tents are withdrawn. And again, should conception follow these operations, as it sometimes does, another difficulty might be reasonably apprehended, as a consequence of the cicatrices, viz., an unyielding neck and os uteri.

Dysmenorrhea may depend upon endo-metritis, and when it does, this instrument may be made useful, in abstracting blood from the part affected, upon the principle of local depletion, but such cases are rare, and form but a small proportion of the cases where narrowing of the neck of the uterus exists.

It was not our intention to specify all the causes of dysmenorrhea at this time, but we will allude to one which has become quite prevalent of late. Ladies who obtain their knowledge of hygiene from hydropathic journals, and are in the habit of daily cold bathing, are commonly the subjects of dysmenorrhea, and for these we have frequently been called to prescribe.

Believing that in these cases the painful menstruation was caused by congestion of the uterus, or its lining membrane, which was kept up by the repeated application of cold to the surface, the enfeebled organ not being able to react as a healthy structure would do, we have not unfrequently been gratified to find that all the painful sensations have disappeared upon our prescribing the cold bath.

In cases like those referred to in the paper which has called out these remarks, there are good reasons, as well as high authority, for the teaching that all rudeness and violence should be avoided.

VARIOUS FORMULÆ FOR THE GELATINIZATION OF COD-LIVER OIL.

M. STANISLAS MARTIN'S JELLY MODIFIED.

℞.	Cod-liver oil, - - -	℥ ij.
	Fresh spermaceti, - -	℥ ijss.
	Simple syrup, - - -	℥ vj.
	Jamaica rum, - - -	℥ vj.

Beat the ingredients together with the aid of heat, and when the mixture has acquired some consistence, pour it into a wide-mouthed bottle.

COD-LIVER OIL SOLIDIFIED WITH GELATINE.

℞.	Pure gelatine, - - -	℥ ss.
	Water, - - - -	℥ iv.
	Simple syrup, - - -	℥ iv.
	Cod-liver oil, - - -	℥ viij.
	Aromatic essence, - -	q. s.

Dissolve the gelatine in the boiling water, and add successively the syrup, the oil, and the aromatic essence; place the vessel containing the entire in a bath of cold water; whip the jelly for five minutes at most, and then pour it, while still fluid, into a wide-mouthed glass bottle, furnished with a cork, or with a pewter cap, or if a bottle be not at hand, into a porcelain or earthenware pot, which should be carefully closed.

COD-LIVER OIL GELATINIZED WITH CARRAGEEN OR IRISH MOSS.

℞.	Fucus crispus, - - -	℥ ss.
	Water, - - - -	℥ xvij.
	Simple syrup, - - -	℥ viij.
	Cod-liver oil, - - -	℥ viij.
	Aromatic, - - -	q. v.

Boil the carrageen in the water for twenty minutes; pass the decoction through flannel; concentrate it until it is reduced to four ounces by weight; add the syrup, the oil, and the aromatic; whip the mixture briskly, having first placed it in a cold bath, and pour it, while still a little warm, into the vessel intended to receive it. The syrup may be replaced by an equal quantity of Garus' elixir, mint or vanilla cream or rum, etc.

M. Sauvin proposes to combine cod-liver oil with Iceland moss.

LICHEN AND COD-LIVER OIL.

℞.	Iceland moss jelly, - -	ʒ iv.
	Gelatine, - - -	℈ iv.
	Hydrocyanated cod-liver oil (to which two drops of essence of bitter almonds have been added), - - -	ʒ vj.

Prepare the Iceland moss jelly in the usual manner; melt the gelatine and pass it into the vessel which is to hold it; then add the cod-liver oil; stir the entire with a spatula, until the mixture be homogeneous and the jelly begins to congeal. Dose—two or three spoonsful daily.—*Bull. Gen. de Therap.*—*Dublin Hospital Gazette*, *Aug.* 15, 1857, *p.* 254.

CREAM AS A SUBSTITUTE FOR COD-LIVER OIL.

The *N. A. Medical Reporter* says, "Prof. Clark, of New York, who is a most thorough pathologist, recommends the use of pure sweet cream as a nutritious article in consumption. He informs us that he has used it for some years in this disease, with very gratifying results. We now have a patient under treatment, with consumption, who is taking the cream instead of cod-liver oil, according to the advice and council of Dr. Clark, and the cream has had better effect than the cod-liver oil."

CHLOROFORM.

A writer in the *Household Words* gives the following description of the discovery of the powerful anæsthetic properties of chloroform:

To Professor Simpson, of Edinburgh, belongs the distinguished credit of introducing chloroform, which has nearly superseded all other anæsthetics. Possessed with the notion that something better than ether existed in the chemical world, the Professor set about deliberately to examine any volatile substance

which afforded a promise of revealing the required properties. Various gases and liquids were experimented upon; and at last chloroform—a ponderous liquid which provoked no great expectations, and only known as a chemical curiosity in the laboratory—was brought to the trial. Doctor Simpson, with his two assistants, sat down late one night, after an arduous day's toil, and, when most physicians as well as patients were wrapped in sleep, began to inhale various substances which had been collected. A small bottle of chloroform had been raked up out of some obscure corner, and was to take its turn with the rest. Each experimenter provided himself with a tumbler or finger-glass, a portion of each selected fluid was poured into the bottom of it, and the glass was placed over warm water to favor evolution of vapor. Holding the mouth and nostrils over the vessel, these votaries of science courageously explored this *terra incognita* by inhaling one vapor after another. At last each charged his tumbler from the small bottle of chloroform, "when immediately," says Professor Miller, "an unwonted hilarity seized the party; they became bright-eyed and very happy, and conversed with such intelligence, as more than usually charmed other listeners who were not taking part in the proceedings. But suddenly there was a talk of sounds being heard like those of a cotton-mill, louder and louder; a moment more, then all was quiet, and then—crash!

"On awaking, Doctor Simpson's first perception was mental: 'This is far stronger and better than ether,' he said to himself. His second was to note that he was prostrate on the floor, and that his friends were confused and alarmed. Hearing a noise, he turned round, and saw his assistant, Doctor Duncan, beneath a chair, his jaw dropped, his eyes staring, and his head half bent under him; quite unconscious, and snoring in a determined and alarming manner. More noise still, and much motion, and then his eyes overtook Doctor Keith's feet and legs making valorous efforts to overturn the table, or more probably to annihilate everything that was on it.

"All speedily regained their senses, and from that day, or rather from the middle of that night, dates the discovery of the marvellous properties of chloroform."

Dr. Grover, of Momence, Illinois, has obtained a patent for an abdominal supporter, to take the place of the ordinary bandage or binder applied after delivery.

THE ECRASEUR.

The *Lancet* says "the ecraseur has become almost obsolete in London hospital practice. We have ever looked upon its use as an unsurgical proceeding. Like every other novelty, it has had its trial, and it will soon be altogether laid aside, unless in some very exceptional surgical maladies, in which the risk of hemorrhage may again require its aid."

PROFESSIONAL HABITS IN 1670.

The great Sydenham, in the last treatise which he wrote, gives the following account of his own manner of living:

"In the morning when I rise, I drink a dish or two of tea, and then ride in my coach till noon; when I return, I moderately refresh myself with any sort of meat of easy digestion that I like (for moderation is necessary above all things); I drink somewhat more than a quarter of a pint of Canary wine, immediately after dinner every day, to promote the digestion of food in my stomach, and to drive the gout from my bowels. When I have dined I betake myself to my coach again, and when my business will permit, I ride into the country two or three miles for good air. A draught of small beer is to me instead of a supper, and I take another draught when I am in bed, and about to compose myself to sleep."

ATTENDANCE ON MEDICAL LECTURES IN LONDON.

We have become so accustomed to hearing the names of distinguished teachers in the various departments of medicine and surgery in London, that we fancy that large numbers of students and practitioners will avail themselves of this privilege of hearing them.

On this point Dr. A. B. Palmer, senior editor of the *Peninsular and Independent Medical Journal*, writes as follows from London to that journal:

Dr. Walshe has delivered only one set clinical lecture this term, which one I had the pleasure of hearing. It was upon mediastinal tumors, and based upon a case which occurred some time before. It was an exceedingly able lecture, philosophical and discriminative—analyzing closely all the symptoms, comparing them with such as might have been produced by other pathological conditions, and with which they may have been confounded, etc.; and it was delivered in the clinical lecture room to just *thirteen* students, two of whom were asleep during most of the hour. The places of these sleeping ones were supplied by another American physician and myself, so that there was still an audience of a baker's dozen. I have been astonished everywhere to find the classes listening to lectures, so small.

There is only a dozen attending Dr. Jenner's lectures, on pathological anatomy; some fifteen or sixteen Mr. Erichsen's clinical lecture, which I heard; and in the large school and hospital of St. Bartholomew, the classical Dr. West, in his regular course on obstetrics, is lecturing to between thirty and forty; and Dr. Murphy, in the same regular course, at University College, is addressing about half that number. The largest class I have seen assembled for a lecture was at Dr. Garrod's, at University College, and that was between fifty and sixty. The reason of this is to be found in the large number of schools, and the more moderate number of students studying in the Metropolis. The practice of lecturing to so few gets the professors in the habit of being dull in their manner. As a body, they are much more prosy than those I have been accustomed to hear in our own country.

Dr. Garrod is an active and industrious man, and is on duty in the hospital. He has fewer students attending in his ward than Dr. Walshe. I think I have not seen present more than half a dozen, and the average of those attending the physicians in their wards in all the hospitals, is but little over this number. The surgeons are generally better attended, their numbers

being from ten to twenty-five, at most, except when there are operations in the amphitheatres.

The Legislature of New York has incorporated a Preparatory School of Medicine in the city of New York. The following are the Lecturers:—on Surgery, John O. Bronson, M.D.; Midwifery and Diseases of Women and Children, Chas. A. Budd, M.D.; Chemistry and Toxicology, Bern L. Budd, M.D.; Legal Medicine, Hon. John H. Anthon; Physiology and Micrology, Charles K. Briddon, M.D.; Botany and Materia Medica, Geo. Thurber, M.D.; General and Special Pathology, Geo. A. Quimby, M.D.

The Faculty are empowered, under certain restrictions, to confer the degree of *Bachelor of Medicine.*

ELECTRICITY AS AN ANÆSTHETIC AGENT IN DENTAL SURGERY.

At a meeting of the College of Dentists, on Tuesday last, at the board-room in Cavendish square, the report of the committee appointed for testing the power of electricity in alleviating the pain caused by "tooth drawing" was read by Dr. Richardson. The following is an abstract of the document:

"Sixty-eight cases of extraction were recorded, in sixty-five of which the anæsthetic value of electricity was tested; in fifty-five of those the intermittent current was employed, and in ten the continuous. In these experiments every possible modification was introduced. The poles of the batteries were reversed in different cases; the force of the current, as indicated by the sensations of the patients, was varied; and every necessary precaution was made to secure insulation of the operator. In a large proportion of these cases the results were negative. In some the application of the current produced additional pain; in others, less pain was produced; and, in five cases, there was direct evidence of relief.

"In cases where relief was most apparent, the committee believed that the insensibility was general, the patient being at

the time of the operation in a state of syncope. In cases where it was expressed that the pain was less than had been experienced on previous occasions when no electricity was used, the committee consider that the apparent benefit was traceable to four causes—diversion of sensation, less difficult in extraction, syncope more or less marked, and differences in method of operating.

"Cases in which pain was increased by the current were those of recent inflammation of the periosteum, or where abscess was present. In regard to the direction of the current of electricity, its force as computed by the sensations of the patient, the position of the poles, and the different forms of electrical apparatus and currents, the committee could arrive at no affirmative results; differences in these respects indicating in the main no specific differences in effect.

"In a final point the committee were unanimous, that in not one instance did any member observe the nearest approach to local anæsthesia. At the same time, the members were of opinion that the intermittent current was allowable in certain cases as a means of producing a diversion of sensation. But as, in a scientific point of view, the electrical current could not be accepted as an anæsthetie, the committee had no data on which to recommend any special electrical apparatus, nor any particular method of applying electricity in dental operations."

EVIL OF SMOKING TOBACCO, AND ITS NATIONAL COST.

A controversy is just now going on in Glasgow, between Mr. William Logan and Dr. M'Leod, as to the utility or the evil of tobacco-smoking. Mr. Logan uses some very forcible argument against the employment of the "weed." He says he had lived—

"In London, Leeds, Rochdale, Bradford, and Glasgow, for upwards of sixteen years amongst the humbler classes; and whilst he had met with thousands of inveterate smokers, he never found one of them attempt to defend smoking, but they almost invariably referred to it, of their own accord, as a 'bad

habit,' and regretted that they had been foolish enough to learn it. The only occasion on which he had seen tobacco used with apparent advantage was when visiting, some eighteen months ago, the inmates of the Lunatic Asylum at Edinburgh, where the intelligent medical superintendent gratified about a dozen of the unfortunate inmates by quietly dividing amongst them about half an ounce of tobacco."

SURGICAL ITEMS.

NEW MEDICAL GAZETTE.

Prof. Gustav C. E. Weber has issued at Cleveland, a monthly medical journal, of 32 pages, at one dollar per year. While several medical periodicals, among which, the *Montreal Chronicle*, the *Maine Medical Journal*, the *Louisville Medical Gazette*, have been induced to suspend for want of support, we cannot but honor the courage of one who assumes the responsibility of a new one.

Prof. Weber holds the chair of Surgery in the Cleveland Medical College, formerly so ably filled by the late lamented Prof. Ackley, and his journal gives promise of usefulness.

We believe that Prof. Hamilton has recently completed his work on fractures, and that it will soon be issued from the press.

OVARIOTOMY.

At the time of writing a notice of this operation, we were not in the possession of the essay of Dr. Lymen, of Mass., published in 1856. This essay is in many respects the most complete which has yet been published on the subject, and contains some very just criticisms on tables and cases formerly published. It

is deficient at the present date, in what regards the use of iodine injections for ovarian cysts. It appears that Dr. Lyman is preparing a new and larger edition of his valuable essay in which this defect will no doubt be remedied.

We notice in the last number of the *St. Louis Medical Journal*, a fifth operation by Professor Pope mentioned. The patient died one or two hours after the operation, and the tumor was found to be of a cancerous nature.

Operations for the radical cure of hernia are the prevailing mania of the profession just now, and instruments of various kinds are offered in all instrument makers' shops, by which the *manuel operatoire* may readily be effected.

This mania is a disease which only attacks a surgeon once, and, having experienced it several years since, we are at present exempt. We would say, therefore, to our friends, be not in a hurry to perform operations for the radical cure of hernia.

The operations now proposed, are essentially that of Gertly, in vogue about twenty years ago. If the effects are slight, it fails of success; if severe, it is dangerous.

LARREY, FATHER AND SON.

The announcement of the appointment of Baron Larrey as surgeon-in-chief of the army of the Alps, now of Italy, has awakened an interest concerning the antecedents of this surgeon, which the paragraphs circulating in the journal do not satisfy.

The career of the elder, Jean Dominique Larrey, is so well known as to require little notice. He commenced his career as surgeon on board a French national vessel in 1787, and was sent to the coast of Newfoundland. Returning to France the following year he was appointed assistant surgeon in the army, and served his first campaign, under Marshal Luckner, on the Rhine, in 1792. From that time to the battle of Waterloo, in 1815, he was always engaged in military duties, mostly as sur-

geon-in-chief of the imperial guard. In Italy, Egypt, Syria, Germany, Russia, wherever the French arms were carried, was Larrey found. He died at Lyons, in 1842, at the age of 76, Member of the Institute, of the Royal Academy of Medicine, Commander of the Legion of Honor, Member of the Council of Health of the Army, and bearer of many other honorable titles besides, he rose to the highest social rank. His principal works are his Memoirs of Military Surgery, *Clinique Chirurgicale*, and *Relation Medicale des Campaignes et Voyages, from* 1815 *to* 1840.

No surgeon has left so great a reputation, both scientific and popular. It was he of whom Napoleon said, "he is the most virtuous man I have known," and to whom the people of France erected a bronze statue by penny subscription.

This beautiful work of art, from the hand of David, the sculptor, stands in the court yard of the Val-de-Grace Hospital at Paris.

The present surgeon-in-chief of the army of Italy, Hyppolite Larrey, is his only son. It is no disparagement of the father to say, that he is in all respects a worthy successor. I believe he has already won many of the posts of trust and honor held by the elder Larrey. He is surgeon-in-ordinary of the Emperor, Professor of Clinical Surgery at the Val-de-Grace Hospital, Member of the Imperial Academy of Medicine, Member of the Council of Health of the army, Surgeon-in-Chief of the army of Italy, etc. It is said that, before leaving Paris, he donated the house in which his father was born to the town in which it was situated, and appropriated a sufficient sum to yield $250 per year, for the purpose of keeping up a school for children in it. The association of the younger Larrey with the younger Napoleon has something of poetic justice not often met with in real life. May the career of both be as glorious, and more fortunate than that of their predecessors.

THE CHICAGO

MEDICAL JOURNAL.

VOL. II. SEPTEMBER, 1859. No. 9.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

AN ESSAY ON THE TREATMENT OF SPINA BIFIDA (*HYDRORACHITIS*) BY INJECTIONS OF IODINE.

BY DANIEL BRAINARD, M. D.,
Prof. of Surgery in Rush Medical College, Surgeon of the Chicago City Hospital, etc.

This disease or malformation is generally regarded in this country as beyond the reach of remedy. I have often had occasion to verify the truth of this statement; and if we look into surgical books of authority but a few years since, we shall find that this view is only the perpetuation of an error then quite general everywhere. Thus, in the latest editions of Mr. Samuel Cooper, we find the following opinion concerning it: "The present affection is one of a most incurable nature; for, with the exception of one case by Morgagni, a second recorded by Kellman, and two or three more recently published by Sir Astley Cooper, there is not, I believe, in all the records of medicine or surgery any cases which either got well of themselves, or were benefited by any mode of treatment." Vidal de Cassis, Ollivier, an excellent authority on this subject, Sabbatier, Itard and others, advise against any operation. I hope to prove herein that such is not by any means generally the nature of this affection.

Another error generally prevalent among physicians is the opinion that spina bifida is of rare occurrence. Chaussier (*Dict.*

de Medicine, vol. xvi.) states that in the Foundling Hospital in Paris it is the malformation of most frequent occurrence, ranking before club-foot and hare-lip. This statement of Chaussier, although correct in itself, is not so in a general sense.

There are particular years in which this malformation is of frequent occurrence. They are those which follow periods of distress, as after epidemic diseases have prevailed extensively, etc. During the year 1849, which succeeded the cholera year, I met with four cases of spina bifida in new born children; while, from 1853 to 1858, in a much larger field of observation, I have only met with one.

Since 1836, I have treated one hundred and fifty cases of hare-lip, and near one hundred and thirty cases of club-foot. During the same period, I have only met with eleven cases of spina bifida of all kinds, of which five only were subjected to treatment. Making allowance for the fact that parents and physicians generally consider this latter as incurable, and therefore do not consult a surgeon, while the former are usually presented at an early age, it still appears that hare-lip and club-foot are each more frequent than spina bifida in the proportion of, at least, ten to one.

Spina bifida presents itself in form of tumor, situated along the course of the spinal column, or upon the occiput. It may vary in size from that of a child's head to that of a small nut, but it is most frequently found of the size of a common apple. It is circular or oval, sometimes pediculated, lobulated or double.

The most frequent situation is the lumbar region, or at its junction with the dorsal, next the sacral. It is, however, sometimes found upon the back part of the head. I once met with a case of the last named variety in a young girl, aged about six years. The tumor was situated at the occipital protuberance, and was of the size and shape of a pear, with a small end attached to the head. I regret that I was unable to procure a figure of this rare tumor. Those of the head or neck are esteemed the most dangerous, but this is doubtful.

The tumor is generally covered with healthy skin; the exceptions are where cicatrices exist, in some cases indicating a progress toward cure, where ulcerations exist, with or without

appearance of cicatrices, when the covering at the centre is composed only of the membranes of the cord. This is seen in tumors of large size, and such often burst during childbirth.

The sac is lined by the arachnoid membrane and the dura mater. These are often thickened and indurated, and not endowed with the irritability of the normal arachnoid. The change which takes place is like that which is found in the tunica vaginalis in cases of hydrocele of long standing. The tumor is more or less soft and fluctuating according to the state of the circulation, *is hard during sleep*, translucent, as may be easily seen by placing the small end of the stethoscope against it and looking in while a light is applied to the other side. Where the walls are lax, the finger may be inserted between the transverse processes of one or more of the vertebræ. The spinous process is wanting.

The fluid contained in the tumor is generally clear, slightly yellow, and when allowed to stand, a fine coagulum of fibrine is seen to have formed in it. Flakes of albumen are also formed in it by the application of heat. Sometimes the cord itself is protruded through the opening, constituting a species of "hernia" (Olivier, *Dict. de Medicine*), and more frequently the nerves are found adherent to the walls of the sac. Indeed, Hewitt considers this to be the usual arrangement, and says, that in twenty preparations of spina bifida, he found but one in which it was otherwise (*Med. Gazette* for 1844).

The fluid of the sac can generally be pressed in part into the spine. Sometimes, however, the opening is closed. I have met with one case in which none of the fluid could be pressed into the spine, and in which pressure had no effect on the brain, and Velpeau regards the disease as sometimes of the nature of a serous cyst.

Among the varieties which this malformation presents are mentioned instances where it was situated on the side of the spine, and there is one instance on record where it was in the pelvis, and the bodies of the vertebræ divided. Among the complications are to be reckoned hydrocephalus, imperfection of the cord at the point where the disease is situated, club-foot, various deviations of the lower extremities and paralysis.

Several writers state that hydrocephalus is generally present, among whom may be mentioned Chelius, Vidal and others.

Chaussier, however, who founds his opinion on an examination of 132 cases, states that in the majority the disease is simple, and that any complication is to be regarded as an exception.

NATURE AND SEAT OF THE DISEASE.

Hydrorachitis is undoubtedly to be regarded as an unnatural increase of the *cerebro-spinal* fluid; at least, of that part of it situated within the spine. Of this the following account is given by Todd and Bowman: "This fluid fills the sub-arachnoid space during life. Its quantity, which varies between two and ten ounces, is in the inverse ratio to the bulk of the brain and spinal cord." "The cerebro-spinal fluid is most probably secreted by the pia mater, since it is found wherever that membrane and sufficient space exist. The ventricles of the brain contain a secretion of very similar, if not identical, characters, which Magendie describes as communicating with that of the sub-arachnoid space through an orifice at the inferior extremity of the fourth ventricle. This, however, is extremely doubtful, as the fluid is enclosed by a membrane which lines their cavities." (*Physiological Anat.*, p. 231.)

We have then in the healthy state a fluid beneath the spinal arachnoid, a fluid in the ventricles, and a very slight quantity between the arachnoid and the dura mater.

In disease, an increase of that of the spine constitutes *hydrorachitis;* an increase of that of the ventricles, *hydrocephalus.* The cavities of the sub-arachnoid space do certainly communicate with the ventricles in some rare cases of disease, and then the two diseases co-exist, and with communication. The arachnoid is also often broken in disease so as to allow the fluid to pass into the space between it and the dura mater. This statement of Todd and Bowman corresponds exactly with pathological reports of dissections, and with physiological facts, for the separate functions of the cord and the brain would lead us to expect a certain degree of independence in the circulation of each.

Where the fluid of spina bifida is situated in the sac of the

arachnoid membrane, it can only communicate with that in the lateral ventricles by a rupture of the membrane. Ollivier states that the fluid is often found beneath the arachnoid, and between it and the pia mater; and Meckel says this is its usual seat.

Treatment.—There are, as I have stated, many surgeons, and those among the most judicious, who oppose all surgical interference in this affection. I have already quoted Vidal and others to this effect, and new names might be added. I am happy to say, however, that in recent years this view is becoming less frequent than it was formerly.

The propriety of any treatment depends upon its results. After a review of what has been done, we shall be better able to judge of the value of the different operations proposed.

These are:

1. The seton, said to have been proposed by Dessault and Mathey, has been used several times, but always without success.

2. The ligature, proposed by Forestius and recommended by B. Bell, Reynard and L. de Thimecour.

3. Excision and closure of the opening with the suture, proposed by Dubourg.

4. Repeated puncture.

5. Pressure, proposed by Abernethy.

6. Injection of solution of iodine, proposed and performed by the author; performed also by Chassaignac, Velpeau and Nelaton.

7. Caustic issues near the tumor were proposed by Richter.

TABLE OF OPERATIONS FOR SPINA BIFIDA.

Puncture.

1, Laboune, 5 punctures,	cure.
1, Probart, not stated,	"
2, Rozetti, small punctures,	"
1, Wardrop, several punctures,	death.
1, Hewitt,	"
1, Velpeau, 4 punctures with lancet,	"
1, Abernethy, 10 punctures,	"

1, Otto (died of hydrocephalus), ... cure.
1, Hoffman, ... "
1, Beaunier, ... "
1, Pooley, ... death.
1, Buggiare, 2 punctures after 1 rupture, . . cure.
1, Repeated by same, ... "
2, Dumville, ... 1 cure, 1 death.
1, Stafford, ... "
1, Name not given (*Med. Chir. Review*, for July, 1837, p. 228), ... "
1, Stevens, of N. Y., with iris knife, puncture kept open, cure.
2, Cooper, ... "
1, Each, on occiput, ... death.
1, Cooper, ... "
1, Robert, ... cure.
1, Rosetti, ... "
1, Skinner, 70 operations, ... death.
1, Dupuytren, result not known.
1, Philippe Boyer, ... "
1, Robert (de Beaujon), ... cure.
1, Hawthorn, puncture and pressure, . . . palliation.
1, Tatum, from tetanus, ... death.
1, Ogle, ... "
1, Sir Philip Crampton, 22 punctures, . . . cure.
1, Hutchinson, ... death.
1, Barnes, puncture and rupture, ... "

Excision.

2, Trowbridge, after constriction, ... cure.
1, Sherwood, ... "
2, Dubourg, ... "
1, Tavignot, ... death.
1, Roux, ... "
1, Nott, ... cure.
1, Mott (probably not connected with spine), . . "
1, Cowan, result not known.
1, Hilton, ... death.
1, Childs, ... "

Pressure.

1, Abernethy, ... death.
1, Cooper, ... palliation.
1, Stueber, ... cure.
1, Beaunier, ... "
1, Recamier, ... "

Ligature.

1, Heister, ... death.
1, Reynard, ... cure.
1, L. de Thimecour, ... "
2, Trowbridge, failure several times, . . . "
Ligature applied a short time, . . "
1, Peige, ligature and excision, ... "
1, Dubois, with pins, ... death.
1, Erichsen, ... "

Cases of recovery after rupture: Serris, Ulhoorn, Nance, Stafford,—4.

A resume of the above cases gives the following result:

	Cure.	Death.	Unknown.	Palliated.	Total.
Puncture, . . .	17	16	1	1	35
Excision, ...	7	3	1	—	11
Ligature, ...	5	3	—	—	8
Pressure, ...	3	1	—	1	5
	32	23	2	2	59

Chelius says that repeated punctures nearly always result unfavorably (*System of Surgery*, by South, vol. 3, p. 187).

Brechet, who tried puncture on a large scale, found it always to fail.

M. Pacoud operated several cases and always failed.

M. Bajard did the same with the same results.

Besides Sulzman, Trompei, Porter.

M. Lyon states that he has punctured seven or eight cases of spina bifida without benefit.

Indeed, I do not regard this table as of much practical value. Most frequently cases are reported so imperfectly as to be of

little utility. It is for this reason that I have not sought to make it more extensive.

There are, however, two practical inferences which may be drawn from these cases. They are:

1st. The success of puncture is proportioned to the smallness of the instrument.

2nd. That when the fluid became turbid it indicated a favorable progress towards cure.

Injections of Iodine.—The cases operated on by injections of iodine, up to the present time, are ten in number; of these, five belong to the author, two were treated under my direction by Dr. S. G. Crawford, formerly of this city, one was treated by Chassaignac, one by Velpeau, and one by Nelaton.

I have no report in detail of the cases treated in Paris. Such as have been published will be added after the detail of the cases treated under my own observations.

Case I.—The subject was a girl thirteen years of age. The tumor, situated at the top of the sacrum, was nine inches in circumference and three inches in height. Its surface and the skin adjoining presented numerous cicatrices, marks apparently of former ulcerations. The child was partially paralytic in the lower extremities, idiotic, and passed the urine and fæces involuntarily. The head was small and the bones perfectly formed.

The first injection was performed on the 2nd December, 1847. A puncture was made with the point of the lancet half an inch distant from the base of the tumor, and a small-sized exploring trochar carried thence into the sac. Through the canula, a solution of half a grain of iodine, with one grain of iodide of potassium in one ounce of distilled water, was injected. The canula was immediately withdrawn, and a compress and bandage applied so as to prevent the escape of the liquid.

The injection produced a sharp pain which soon subsided. Redness, heat, and tenderness of the tumor followed, for which a cathartic was administered, and evaporating lotions applied to the part. Compression was resorted to as the heat and tension subsided, and, December 27th, the tumor was about half its former size.

At this time, a second injection was resorted to of half the strength of the first. This produced little inflammation. The compression was continued. January 15, 1848, the fluid was so far absorbed as to render it easy to press most of it within the spine, and a common spring truss for hernia was applied, the pad upon the opening.

The case then passed from under my observation, but fell under the care of Dr. Huber, who had at that time charge of the county poor at Chicago. The following is his account of the case and his treatment:

"I injected the tumor thirteen times, viz., May 3, 10, 20, June 15, 22, July 14, August 10, 15, 25, September 5, 16, 26, and October 20, 1848. The injection for the first four times was of the strength of four grains of iodine and sixteen grains iodide of potassium to the ounce of distilled water, beginning with one and a half and increasing to three ounces at the fourth injection.

"The sac was then much contracted, and I therefore doubled the strength of the solution and injected but half an ounce. After the first two operations the child had some slight febrile symptoms, but not since. I consider the cure complete. She has improved in the use of her lower extremities, being now able to walk across the room."

This case was published in the *Chicago Medical Journal* for 1849, p. 495.

Two years after the operation the child remained cured, and much improved in every respect.

Case II.—This case occurred to me, April 12, 1849. The tumor was of the size of a closed fist, and had been ruptured during labor.

By the application of artificial heat, the first ill effects of the rupture were dissipated. A reddish serum was discharged from the sac and canal, which, on the 17th, became copious and offensive. Injected a solution of iodine, 4 grs. iodide potassium, 12 grs., to the ounce of distilled water. The solution escaped as fast as injected.

30*th*. Repeated injection; discharge purulent.

May 2d. Injected with solution of sulphate of copper, and applied compression over the opening. The sac was contracted down to a hard tubercle, with a small opening in the centre.

The injection was repeated on the 4th and 6th, and the child seemed well in every respect.

May 12th. Opening quite closed; *head noticed to be enlarging; bones separated.* This continued till June 1, when the child died in a paroxysm of convulsion.

This case resulted fatally from closing the fistulous opening in the skin too soon, but it illustrates, in a striking manner, the beneficial effect of injections into the spinal canal, and the little danger to be apprehended from their use. The child lived over six weeks.

I was not aware at the time of the danger of making compression over such an opening, but held, in common with the whole profession, the erroneous opinion that the danger in cases of inflammation of the meninges of the cord and brain was greatest when an opening existed.

This is an error which has recently been pointed out by Dr. Thompson, of Columbus, Ohio. Far from closing such an opening, the sac should be punctured if acute inflammation results from treatment, and the liquid drawn off.

Published in the *Chicago Medical Journal* for 1850.

Case III.—*Spina Bifida, accompanied by Hydrocephalus.*

Feb. 12, 1850. A female child, three months old, born at seven months, and very feeble, was presented, affected with spina bifida and hydrocephalus. The tumor occupied the lumbar region, was three and a half inches in length, two and a half in breadth, and one and a half in elevation.

In the usual manner I injected it, using iodine $\frac{1}{2}$ grain, iodide potassium $1\frac{1}{2}$ grains, in 1 drachm of distilled water, without drawing off any fluid.

This was repeated but once. In the interval, $\frac{1}{6}$ grain of tannic acid, in $\frac{1}{2}$ drachm of distilled water, was injected at intervals of eight days.

After the last injection, which was of iodine, twitching of the

members occurred, to such a degree as to induce me to draw off the liquid and replace it in part with distilled water. This gave immediate relief. The child took the breast and remained well for eighteen hours, when it took convulsions and died.

The opening into the spinal canal was perfectly closed. The sac contained one drachm of clear water, without any effusion of lymph or unnatural vascularity. There was no sign of irritation about the tumor to account for death. The head was large, measuring 18 inches in circumference. An examination of it was not allowed.

The tannic acid was twice substituted for the iodine at the suggestion of a medical friend, under the supposition that its astringency would be more effective in preventing effusion. It was found, however, to produce more irritation with less tendency to absorption afterward, and was therefore discontinued.

Although death occurred in this case suddenly, there is no reason to attribute it in any degree to the spina bifida, or to the treatment employed; it was the result of other causes, probably the disease of the head. The effect of four injections in as many weeks in closing the opening into the spine, without giving rise to suppuration or considerable inflammation, must be regarded as highly favorable results of the treatment.

Case IV.—*Sept. 20th*, 1849. Saw a female child, aged four days old, affected with spina bifida and hydrocephalus. The tumor was about three inches in length and half as broad. There seemed to be a division of the bodies of some of the vertebræ. The covering of the tumor was semi-transparent, and seemed to be composed of the membranes of the cord and cuticle. Indeed, this latter was wanting over a space as large as a shilling, where an ulcer existed. The head was large, measuring 19 inches in circumference. The right foot was affected with talipes varus. The movements of the members were feeble. The urine ran away *guttatim*.

Oct. 9th. I injected the tumor in the usual manner, using 1-16 grain of iodine with twice that quantity of iodide potassium in half a drachm of water. Some reaction followed, which soon subsided; and, at the end of a week, the tumor could be kept

at a level with the sound skin by the applicatian of collodion. This was continued, and the sac did not fill again.

The child lived seven months after this operation, and died of hydrocephalus, for which it received treatment, which I have detailed in a separate article on that subject.

Case V.—A female child, aged four months, was brought to me, March 11th, 1855, with a spina bifida, situated at the middle of the lumbar division of the spinal column. The tumor was two and a half inches in length, one and a half in breadth, and about an inch in elevation. It presented the usual symptoms, except that an ulcerated surface of the size of a quarter of a dollar existed at the centre. The fluid could be, in a great measure, pressed into the spinal column, the child becoming uneasy. The head was a little larger than natural, and the sutures at the superior part not closed. In other respects, the child was well formed and healthy.

March 12th, 1855. Injected the tumor with one drachm of a solution containing one-eighth of a grain of iodine, three-fourths of a grain of iodide potassium, to one drachm of distilled water. I was assisted at this time by Prof. Freer, and Drs. Fisher and Morfit, of this city. On other occasions, Dr. T. Rush Spencer and several physicians visited the case with me.

This injection was followed by some heat and fullness, which subsided, and the tumor became more flaccid. Light compression was then used upon it.

March 17th. Repeated the same injection; also, March 22, 25, 28, and April 1, 10 and 14. At the end of this time the surface of the tumor was on a level with the sound skin, the ulceration was healed, and the fluctuation had entirely disappeared. Before each injection, a quantity of fluid equal to that of the solution to be thrown in was withdrawn.

This child was delicate, and the symptoms of a febrile nature after each operation were greater than I have before witnessed in any case. This I attributed to impurity of the iodide employed, and after changing it, less effect was noticed. At first, the fluid withdrawn was limpid, but after each injection it became

turbid, of a whitish hue, and had flakes of lymph and albumen floating in it.

The child returned home, April 20, with every appearance of being cured, and with the promise on the part of the parents that should the symptoms of hydrocephalus increase, they would return to have the head injected. This they did not do; and in June, 1856, fourteen months after the completion of the treatment, I learned authentically that the child was in good health, the spina bifida perfectly cured, and the head not materially worse than at the time of the treatment being employed.

Case VI.—This was a child, aged three months, in good health, except a tumor of the size of half an orange, situated at the lower part of the lumbar region, with all the characteristics of spina bifida. The case was intrusted to the care of Dr. S. G. Crawford, whom I furnished with the instrument I was in the habit of using.

Dr. Crawford used the injection three times, at intervals of two weeks, applying the collodion when it was soft, at the end of which time the tumor was level with the surrounding skin. A pan, supported by a band, was then applied.

The third injection in this case was composed of four grains of iodine and ten grains of iodide of potassium to the ounce of distilled water. Of this two drachms were thrown in. The first two were of half the above strength.

Six months afterward, the case was reported perfectly cured.

Case VII.—This case occurred in the practice of Dr. Crawford while he was treating the last one.* It was in a new-born infant. The tumor was situated near the end of the sacrum and was pediculated; it was of the size of a hen's egg, the integuments thick, and the fluctuation obscure. The child was perfectly well formed in other respects.

In view of the slight effects produced by the injection in the former case, Dr. Crawford resorted at once to a solution con-

* The year 1848 was the first of a series of years in which the cholera prevailed. The terror produced by the disease caused many malformations, besides changing the usual relations between the numbers of male and female births, as has been noticed elsewhere.

taining iodine one grain, iodide potassium three grains, to one drachm of distilled water. After drawing off considerable fluid, this was injected, allowed to remain about a minute, and then pressed out in part. A compress and roller were then applied over it.

The inflammation which resulted was acute, but gave rise to no cerebral or spinal symptoms, and subsided at the end of five days. Afterwards, the compression was increased and continued for a month. At the end of this time, the tumor was hard, wrinkled and without fluctuation, about one-fourth of its original size.

Four months afterward, it remained in the same state and seemed perfectly cured.

CASES OPERATED IN PARIS.

M. Chassaignac performed the operation in June, 1851. He injected equal parts of tincture of iodine and water, first evacuating the tumor and placing the finger so as to prevent the injection from passing into the spinal opening. After a short sojourn, the solution was allowed to flow off.

For six weeks there was no change in the tumor, but at the end of that time it disappeared.

M. Debout stated that he had very recently seen M. Velpeau practice the same operation. No ill effect resulted. I am not aware that M. Velpeau has published his observations.

The case of M. Nelaton is reported in the *Gazette Medicale* for June 4, 1854. The subject was a new-born child; the tumor was pediculated. M. Nelaton drew off the water and injected tinct. of iodine, which was retained a few minutes and then evacuated. The pedicle of the tumor was compressed during the operation, and afterwards a gum elastic ligature was placed lightly around the base. At the end of fifteen days no change had been noticed, except a little increased firmness. No dangerous symptoms occurred.

The progress of physiology enables us to understand and explain some of the circumstances connected with spina bifida which have heretofore been considered as contra-indicating any operation.

A. The paralysis and contraction of the lower extremities.

That disease or imperfect development of the spinal cord at one point would produce paralysis of the lower extremities, is a fact which has long been known; but that the same lesions might give rise to permanent contraction of the muscles of those members, is a fact more recently established. Marshall Hall, Brown-Sequard and others, have proved this by their experiments on animals. Surgeons have witnessed it as the effect of injuries. In a man of fifty-five years of age, who received an injury of the spine at the top of the dorsal division, producing at first perfect paralysis, contraction of the lower members took place, flexing the thigh upon the pelvis, and the legs upon the thigh, firmly for over two years, at the end of which time the patient died. "Separation of the muscles from the brain increases their irritability" (Marshall Hall, *Med. Chir. Review*, vol. 22).

It is true that Marshall Hall was also of the opinion that separation of the muscles from the spinal cord destroys their irritability. There are two facts in regard to the pathological anatomy of spina bifida which bear upon this point:

1st. Ruysch has remarked that the attenuation of the cord rarely extends below the opening in the spine.

2nd. In cases of spina bifida of the sacrum or lumbar region, the spinal cord is longer than natural. "It is prolonged to the end of the sacrum" (*Ollivier d'Anger, Traite des Maladies, de la Moelle Epiniere*).

We see, therefore, that the cases in which the muscles have no connection with the brain must be most frequent. When the tumor is situated at the extremity of the cord only should we expect paralysis without contraction. It is to be regretted that in but few reports of cases of this malformation have the appearances on dissection and the symptoms been described with sufficient accuracy to enable us to judge of their relations to each other.

An operation, if successful, is often followed by cure of the paralysis and the deformity from muscular contraction. This effect was witnessed in the first case operated by me, already

reported, in the case reported by Dr. Latil de Thimecour (*Gazette Medicale* for 1845, p. 764, *et. seq.*) the same thing occurred, and also in the two cases cited by Messrs. Probart and Rosetti.

Experiments on animals and observation on man have abundantly shown that extensive injuries of the brain, spinal cord and nerves are capable of being repaired. Thus, M. Flourens has found that nerves could be crossed and unite the extremity of one to the root of another, and *vice versa*. Brown-Sequard has found that when a piece of the cord is removed in some animals, it is regenerated. Dessault reports the case of a soldier in whom the cord was divided, and who recovered and retained the power of voluntary movements. Flourens also found that extensive longitudinal wounds of the cord in the goose were healed so as to leave no paralysis behind.

B. The spasms, so frequent and so fatal in spina bifida, are not owing to any incurable, organic, or functional disease of the nervous system, but to want of the natural pressure on the central organs, the walls of the tumor not giving sufficient support to the fluid within.

That want of pressure on the brain gives rise to spasms and insensibility, is a fact which has been often observed, and which I have particularly insisted upon in the report of a case of hydrocephalus. But it does not appear to have been so generally admitted as it deserves to be; I therefore add here the testimony of others. And I am particularly gratified to be able to quote so just and competent an observer as M. le docteur, Jules Guerin. He says (*Gazette Medicale* for 1842, p. 202): "If too much pressure on the tumor produces paralysis always, and loss of consciousness often, it is beyond dispute that the sudden cessation of the compression which the contents of the sac exercise on the cord, may produce the same accidents. We know the experiments of Magendie on the effects of abstracting the cerebro-spinal liquid. We recall the interesting observation of M. A. Berard, who, after having trephined a patient fourteen times for a fungus of the dura mater, saw his patient fall senseless when the brain was un-

covered, and could only restore him by using strong compression of its substance. The unfavorable influence of this want of compression is shown more directly and positively in the second case of M. Dubourg, in which the little patient, which cried strongly at the commencement of the operation, lost all movement, and remained senseless when the tumor was evacuated. We remember also, in 1836, accompanying M. Philip Boyer to see an infant treated by repeated punctures. We several times saw the patient lose all consciousness when too much water was evacuated, and could only be rendered conscious by a tight bandage and compress upon the tumor."

These effects do not differ much from those observed in animals dying of hemorrhage, in which syncope and convulsions are observed.

As the presence of the cerebro-spinal liquid antagonizes the pressure of the blood, the sudden removal of the former may either induce a syncope, or, if this be avoided, a fullness of the vessels of the brain, as has been stated by Todd and Bowman.

If an operation is successful, although a bony arch may not be formed, yet the opening of the spine is closed up by a dense, firm tissue, which supplies its place.

APPLICATION OF THE DIFFERENT OPERATIONS PROPOSED.

1. We may, I think, pass by as unworthy of consideration the treatment by the seton, caustic and pressure, as having never produced a radical cure in a single instance, except the latter, perhaps. It is doubtful if the case reported by Sir Astley Cooper, in which a child retained the fluid in the spine by means of a truss, is to be regarded as in any degree palliated. Certain it is, that pressure is generally not only inapplicable, but dangerous if used to a great degree.

2. Excision will probably never be resorted to by any one who has carefully studied the subject. The objections to it are the liability to divide the nerves, and even the cord itself, when adherent to the walls of the tumor; the sudden removal of the liquid, and the entrance of air into the opening, both of which are attended with danger; the great difficulty in securing union by the first intention throughout the whole extent of the wound;

finally, because, in the express language of Vidal, "all those who have tried it have found it to result fatally" (*Traite de Pathologie Externe*, vol. 5, p. 765).

3. *Puncture.*—There are many cases reported in which it is difficult to determine from the description whether tapping or acapuncture was performed. In reference to puncture, whether with a lancet or trochar, the same remarks apply to this operation which we have made concerning excision. The name and authority of Cooper have been sufficient to give it currency; but a careful examination of the cases in which he used it will lead to a conclusion not favorable to its repetition. In one case, Sir A. Cooper used a sharp needle. After repeated attacks of spasm and inflammation, the patient remained without a cure, although the accidents did not prove fatal. The cases of Sir Philip Crampton, of Stevens and several others, were by acapuncture, which is free from many of the objections of the former.

With the exception of such cases, the operation has uniformly failed. Brechet, Pacoud and Bajard have used it several times each, and have never found it to succeed. Chelius says that repeated punctures nearly always fail. The reason for this difference is obvious. The punctures produce an inflammation of the walls of the tumor by which they are thickened, with less danger of ulceration than results from larger wounds. The evacuation of the liquid has no tendency to cure the disease, and is not free from danger, as I have shown.

4. The ligature, proposed by Forestius and recommended by B. Bell, has recently been revived by Reynard and L. de Thimecour. The former, by placing a large quill on each side of the root of the tumor, and passing the ligature through the hollow of each, tying it so as to strangulate it; the latter using, instead of the quills, two rods of wood, but placing them in the same position so as to act in the same way. I confess that if it were not for the superior claims of the injections of iodine, this is the method which I should prefer among all those at present known. It has the advantage of not evacuating the fluid suddenly, of not exposing the membranes to the contact of air, and if excision be allowable under any circumstances, it must be in connection

with compression, as has several times been done already. There is a drawback upon the value of this method, which is, that in the greater number of cases, according to my observations, the tumor is so flat as not to admit of such an application being made, even. This is particularly the case in new-born infants; the cases of large and pediculated tumors being those mostly of patients of more advanced age.

Thus far its application has been followed by more favorable results than the use of either of the preceding methods of treatment.

5. *Injections of Iodine.*—This method of treating spina bifida is said to have been first proposed by Velpeau. The only passage of his writings which I am am acquainted with bearing upon this point is the following:

"It will be readily understood that it is not the *manuel operatoire* which embarrasses, it is the danger of the operation itself; but how great the object in attacking spina bifida, hydrocephalus, etc., by the aid of a remedy, an operation, which succeeds in so many cases, has so few inconveniences when applied to other cavities of the same nature."

"On the other hand, how shall we go to work? *Who will dare the first to throw the tincture of iodine into a spina bifida, or into the cavity of the cranium, knowing that inflammation of the meninges is rapidly mortal?*"*

In his "Essay on Medicated Injections," published in 1846, M. Velpeau alludes to the subject, but does not recommend these operations (see p. 123).

This notice from such a source certainly is not well calculated to encourage a trial. I think, therefore, it is not too much to claim for myself whatever of merit there may be in recommending and carrying into execution the injection of iodine into the cerebro-spinal cavity. This point, besides, is not, that I know, by any means contested in France. M. Monod, in a report made to the Society of Surgery, at its sitting of the 16th March, 1854, says: "M. Brainard had the honor of presenting, in 1847, the first case of cure of spina bifida, by iodine injections, known to science."

* Recherches sur les Cavites Closes, 1843, p. 191.

Although the value of any method of treatment must be determined by its results, yet the conformity of its mode of action to natural processes may weigh much in its favor. What is desired in cases of spina bifida is a means of inducing, with certainty, upon the internal surface of the sac of the tumor, a deposit of lymph, and in the walls of the tumor an adhesive inflammation of a moderate degree of intensity, without wound of the covering, which is often quite abnormal in structure.

It seems obvious to me that injections of iodine in solution, judging *a priori*, are more likely to accomplish these objects than any of the modes of treatment hitherto employed. There may indeed be different opinions about the best method of using it, but experience will reconcile these. MM. Chassaignac, Velpeau and Nelaton have preferred to evacuate the tumor, and after injecting it with tincture of iodine, letting this also flow out. The rules which I have adopted are as follows:

1. Make the puncture in the sound skin at the *side* of the tumor.

2. Inject the solution of iodine and iodide of potassium, commencing with $\frac{1}{4}$ grain of the former to $\frac{3}{4}$ of the latter, and retain it by slight pressure.

3. Evacuate no more of the liquid than the quantity of injection about to be thrown in.

4. If convulsions supervene, the fluid may be drawn out and its place filled with distilled water. (I have not had occasion to resort to this practice more than once.)

5. Lay the patient on the face, and if there be heat, apply evaporating lotions to the tumor and to the head.

6. When the tumor becomes flaccid, apply collodion or other means of contracting the skin. This should be continued for some months after the swelling has disappeared.

7. After the effect of an injection is past, repeat it as many times as may be necessary, and gradually increase the strength according to the effect produced.

By using these precautions, I have thus far avoided serious accidents, although four out of five of the cases which I have had occasion to treat were affected at the same time with chronic hydrocephalus. In new-born infants, I should be disposed, until

experience shall have further enlightened us, to adhere to this practice. In older persons, and particularly when the tumor is pediculated, I should not hesitate to follow the practice adopted by the French surgeons. Theoretically considered, it would appear that the solution injected ought to be applied to the surface which secretes the fluid, which, as we have seen, is probably the pia mater; but in practice it seems to have been sufficient to thicken the covering of the tumor to effect a cure of the disease.

CASES IN WHICH TREATMENT IS INAPPLICABLE.

In advising an operation for the cure of spina bifida, I would by no means be understood as recommending its application without regard to the peculiarities of each case. I do not, however, regard any rules heretofore given as being in all respects sufficient on this point.

The following are the circumstances in which I have advised against interference:

1. When the tumor is small, and the patient several years of age and in good health.

A young lady, eighteen years of age, well formed and in good health, except a spina bifida at the junction of the cervical and dorsal regions, was brought to me for advice. The tumor had existed from birth, but was not increasing in size; was tense during sleep, and flaccid at other times; could be, in a great measure, pressed into spine, but much pressure caused uneasiness. This girl was in good health, excepting that the mother stated her to be nervous, and subject to starts at slight noises and unexpected sights. I advised against interference.

2. When the child is laboring under acute disease, whether this be of the head, of the spinal cord, convulsions, etc.

I do not consider paralysis and contraction of the lower members a contra-indication. They depend upon a state of the cord which may be cured, and they have, in several instances, disappeared after a cure, as before stated.

Neither is hydrocephalus or double tumor to be regarded as a bar to the operation, although, no doubt, they add to the danger of the disease. Four out of five of the cases I have

treated had hydrocephalus, but in no instance did the treatment fail to cure the spina bifida. The only doubt I should have in this case would be whether the head or back should be first treated. (This part of the subject I have noticed in an article on Hydrocephalus.)

Still less are the existence of umbilical hernia, unless of unusual size, ulceration on the surface of the tumor or its great vertical extent, to be regarded as serious objections. Two of the cases treated by myself had ulceration on the tumor, one had cicatrices, obviously the result of ulceration, but all these were cured.

It would only be a combination of these complications very unusual, or evidence of serious malformation of the nervous centres, which would induce me to abandon the case as incurable.

Of the abnormal states of the cord noticed by Meckel as associated, viz., enlargement, flattening, division into two parts, it is doubtful if either is an obstacle to a use of the members in case the disease is cured.

Note.—M. Paget, in 1854, treated a tumor of large size by subcutaneous ligature. "A strong, double silk ligature was passed subcutaneously around the tumor, the ends being finally brought out in the middle of its upper part." The ends were tied loosely and attached to a band of elastic webbing, which was kept tense.

For three days no effect was produced; the child died on the eighth day. The vessels of the spinal cord were found much injected; no other appearance of inflammation (*North-American Med. Chir. Review* for Nov., 1858, p. 1117; from *Med. Times*).

The spinal tumor sometimes communicates with the ventricles through the canal in the centre of the cord. A case where this occurred is related in the Transactions of the Pathological Society of London (ib., p. 1120).

When this is the case, the tumor sometimes diminishes when the head increases, or the reverse.

A case of spontaneous cure, and another where it seemed to be cured by an ulcer on the sac, are related in the *Med. Chir. Review* for Nov., 1858, p. 1120.

ARTICLE II.

REPORT OF TWO CASES OF DIPTHERIA, WITH REMARKS.

(Read before the Chicago Academy of Medical Sciences.)

By DeLaskie Miller, M.D. Prof. of Obstetrics in Rush Medical College.

A disease of the throat, known as "membranous sore throat," and designated also "diptheria," has prevailed of late to a considerable extent in different sections of this country, and also in various parts of Europe, assuming there, as in some parts of the United States, a most malignant and fatal form, but which, as I believe, has not been met with in this city until quite recently. The following cases, presenting the characteristic appearances and pursuing the usual course of this disease, may be of some interest at the present time.

I was consulted, at my house, July 13th, in regard to the illness of the little daughter of Mrs. W., aged about 8 years, who was "suffering from sore throat." Learning that the bowels were costive and that she had some fever (I did not apprehend an attack of scarlatina, for I had attended the child for that disease two years before), I advised a saline cathartic, to be followed by a full dose of Dover's powder.

Upon visiting the patient next day, which was the first time that I examined the case, I learned that she had been affected with soreness of the throat and painful deglutition for several days, accompanied by the usual symptoms characteristic of an onset of fever, such as frequent chills, alternating with flushes of heat, with darting pains through the back and limbs, pain in the head, with frequent pulse. The submaxillary glands were considerably swelled and tender to the touch; the tongue was covered with a thick, tenacious, yellowish coat; the fauces were of a deep red color and slightly edematous, and were, with the tonsils, partially covered with numerous small patches of a fibrinous exudation, which presented a dirty, yellowish-white color; the gums were also considerably swelled. I prescribed Dover's powder, as occasion required, to control pain and restlessness; also, chlorate of potassa 4 grs. every fourth hour, in solution, and the following as a gargle, to be diluted when used:

Liq. soda chlorinat.; also the following gargle, to be used frequently:

℞	Plumbi. acet.,	grs. xx.	
	Morph. "	" iv.	
	Glycerine,	ʒij.	
	Aq. rosa,	ʒij.	M.

15*th*, *a.m.* Appears much the same as yesterday; the glands rather larger and more tender; the pharynx quite covered with the fibrinous exudation. Much relief has been experienced by the use of the gargle, which I ordered repeated more frequently, and continue medicine as before. I also urged the importance of giving nourishment, which the patient was averse to taking, on account of the pain occasioned by the act of deglutition.

18*th*. A slight amelioration of all the symptoms; continue treatment.

20*th*. Still improving; appetite returning.

From this date she continued to convalesce, though slowly, till to-day (August 1st). She appears to have quite recovered, save some degree of debility.

Mr. C. M. consulted me, July 21st, on account of sore throat, which came on three or four days before, and was getting worse rapidly, causing considerable pain, especially during deglutition. I found the tonsils slightly swelled, and preternatural redness and tumefaction through the pharynx, with small patches of diptheritic membrane on the tonsils and fauces; the tongue thickly coated and yellow. Except the local symptoms in the throat, the patient professes himself as feeling quite well. I applied a strong solution of nitrate of silver to the affected part, and ordered a cathartic, and the application of spirits of turpentine externally to the throat.

22*nd*. The patient has considerable fever, and suffers more from the affection of the throat; the exudation has become thick and continuous, forming a pseudo-membrane, covering the pharynx; the uvula very much swelled and elongated, causing the greatest annoyance, rendering excision of a portion of it necessary; the bleeding, which was considerable, afforded slight but immediate relief. I prescribed chlorate of potassa and morphia in solution internally, and the solution of chlorinated

of soda; also, acetate of lead in glycerine, as a gargle, to be used frequently.

After about the third day after I first saw him, the diptheritic membrane began to separate, and was gradually removed in considerable patches, leaving the parts below intensely red and slightly roughened, and from the tongue the papilla projected in long acuminated points. At this stage the patient felt considerable prostration, and his pulse becoming soft and weak, I gave the following, in addition to the medicine before prescribed:

℞	Quinia sulph.,	℈iss.
	Acid sulph. arom.,	ʒij.
	Tr. gentian co.,	℥j.
	Syr. raspberry,	℥j.

M. S. Take a teaspoonful every sixth hour.

The progress of his convalescence from this time has been continuous, characterized, however, by unusually slow return of strength, which even now (August 1st) is not complete.

I might add other cases, but as they differ in no essential particular, either in the symptoms, course, treatment or termination, they would unnecessarily prolong this paper.

There are several diseases having some symptoms in common with diptheria, but differing, as I conceive, so essentially in their nature, as to be distinguished without difficulty, viz., pharyngitis, inflammation of the tonsils, croup, and the angina of scarlatina.

That it is not pharyngitis, as usually met with, or as modified by the depressing influences that aggravate disease among the poor in cities, or from impaired constitutions of the patients, is manifest from the course of the symptoms and by the appearance of the pseudo-membrane. The patients which I have attended with this disease have been in good circumstances in life, and reside in healthy localities in the city. The direct depressing influence of diptheria upon the system is also much greater than would be expected from pharyngitis.

The same circumstances also distinguish it from tonsilitis, so far as they relate to the course of the symptoms and the exudation of the fibrinous membrane, which is not a concomitant of inflammation of the tonsils.

The membranous exudation is met with in croup, but in croup

the parts first affected are the trachea and the larynx, and the membrane is confined to the trachea, or reaches the pharynx only by extension from below; whereas, in diptheria, the parts especially involved are those concerned in deglutition, and the membrane extends from above downwards, and has uniformly presented the appearance of having a feebler organization than the membrane of croup.

From the angina of scarlatina, diptheria may be distinguished, first, by the presence of the membrane, and, second, by the absence of the eruption, and also, in the cases which have come under my observation, by the fact, that the patients were not subject to scarlet fever.

For these reasons, and others which will present themselves to the notice of every practitioner who may have occasion to treat it, we have sufficient grounds for treating diptheria as a distinct affection.

ARTICLE III.

A CASE OF SPONTANEOUS GANGRENE OF RIGHT LOWER EXTREMITY.

REPORTED BY GEORGE SCHLOETZER, M.D., OF CHICAGO.

Mrs. S., aged 43 years, was attacked, in the early part of February last, with an apparently slight indisposition, accompanied with a little œdema of the upper lids, which was attributed to an erysipelas eruption, from which the patient had frequently suffered. Except during these attacks of erysipelas faciei and an attack of typhus fever four or five years ago, she states that she had always enjoyed good health. Menstruation has always been regular. Patient has borne five children, each labor having been attended with considerable difficulty.

On the 6th and 7th of February, she experienced a peculiar sensation in the toes, and shortly afterwards, pain in the region of the hip and right side of the pelvis, which extended downwards as in sciatica. Mrs. S. supposed these pains proceeded from rheumatism, and as they continued to increase in severity, she called her physician on the 8th, who also at first regarded

the disease as rheumatism. As there was some fever, he prescribed antiphlogistic remedies, administered pot. nit., etc., and ordered cups and blisters. Soon after, other important symptoms supervened. The toes and then the whole limb became very cold; sensation and motion were soon lost; the toes gradually assumed a gangrenous aspect; the skin of the leg became livid red; and large, bluish spots soon appeared upon the thigh. On the 9th, at the regular period, the menses commenced, and continued three or four days.

On the 12th of February I was called in consultation. I found the distal half of the toes black and dry (mummified), as we often see in gangræna senilis; the leg, and nearly the whole of the thigh, was covered with large, dark, violet-red maculæ; below the knee, the limb was without sensation and power of motion; the foot was cold, and the natural heat of the thigh was much diminished, except at the uppermost, where it was normal; the right popliteal and femoral arteries were without pulsation; the pulsation of the left femoral artery was stronger than in health; the rheumatic pains, which were now more like those of neuralgia, were still present, but somewhat diminished in violence, and resembling formication. Pulse 115. Upon examination of the heart, I could find nothing abnormal; in the lungs, however, were extensive rales, accompanied with cough; tongue coated; appetite small; bowels confined.

Upon a careful examination, I was disposed to refer all the symptoms to arterial obstruction; whether produced by arteritis, thrombosis, or by pseudo-plasma (infiltration, tumor), in the region of the large vessels, must remain doubtful; probably, however, the obstruction was caused by thrombosis—embolic (coagulum formed in a larger vessel and carried by the blood to the opening of a smaller one).

The prognosis was certainly very unfavorable as regards the limb, with scarcely a hope of saving life. It was now determined, since antiphlogistic remedies had already been employed, to give those of a supporting and stimulating character—cinchona decoct., quinia, wine, nutritious beef tea. Particular regard to change of air was enjoined. Heated woolen coverings were placed around the limb, which was repeatedly rubbed with

spirituous lotions and turpentine. On the next day, electricity was applied to the limb and continued several days. Heated sacks of sand were also placed around the leg and thigh, by means of which a considerable degree of artificial heat was retained. No pulsation reappeared in the arteries, and no remedy seemed to exert the least influence upon the course of the disease. Still, on the 16th of February, the radial pulse seemed to improve, being 90–95, and of better quality.

The integument of the whole limb became more firm, dry and parchment like, and of a darker color. During these modifications, however, the toes scarcely changed their appearance. The stools, which at first had been somewhat confined, were afterwards (Feb. 20th) more frequent (from two to four daily) and watery.

During the evening and night the fever was more violent. The patient had become much emaciated; the pain in the limb was now slight, unless it was moved, or pressure applied to the thigh, near the line of demarkation.

Feb. 22*nd.* The healthy and unhealthy tissues have begun to separate. Subcutaneous emphysema, from generation of gas, had already pervaded the upper portions of the thigh. Except near the line of demarkation, the dry gangrenous process was confined to the external tissues, and the moist to the internal.

The question now arose whether it was advisable to remove the diseased portion by amputation. In consultation with several physicians, it was decided not to operate at present, since rales were heard throughout the whole chest, since dullness on percussion existed in the abdomen, which seemed to indicate an exudation into the peritoneal cavity, and since, further, the sloughing extended, on the internal aspect of the thigh, nearly to the right labium, and on the external aspect, almost as high. Moreover, there continued a feverish pulse; diarrhœa. The strength was failing, and emaciation becoming extreme.

March 1*st.* The space formed by the separation of the unhealthy from the healthy tissues is becoming broader and deeper. A fetid discharge flows from the fissure; in other parts are formed phlyctenae and sloughs, from which exudes the same kind of fetid discharge. The size of the limb is not much in-

creased, since the generated gases and fluids pass off through the sloughs and small incisions which have been made for the purpose. The left foot and leg is already becoming quite œdematous. Pulse feverish (115–125) and soft.

March 5th. There has been for several days a remarkably strong pulsation of the abdominal aorta. Tongue dry, and bright red, as if deprived of its epithelium; no appetite; fluids can only be swallowed with difficulty; there is great restlessness; a colliquative diarrhœa is rapidly reducing the patient's strength.

March 7th. Patient has succumbed. During the last few days there has been no marked change in the general appearance of the limb. The soft tissues, including the muscles, arteries and nerves, upon the inner and posterior aspect of the thigh, embracing nearly two-thirds of its circumference, are destroyed almost to the bone. No autopsy was permitted.

[We append to the foregoing case some notes by Prof. Blackman on the subject of gangrene, which will be found interesting. They are from the *Cincinnati Lancet and Observer* for 1859.]

Cases of cerebral gangrene, resulting from obstruction of the cerebral vessels by detached "cardiac vegetations," have been reported by Kirkes, Ruhle, Tuffnell, Burrows and Virchow. Mr. Paget has also collected a number of cases in which pulmonary gangrene was attributed to the same cause; but of the seventeen cases collected by him, none occurred in the puerperal state.

I confess when I first saw my patient I was not aware that mortification of the extremities had ever been observed in the puerperal state. Since my attention has been directed to the subject, however, I find that it has been discussed by Prof. Simpson, in the second series of his Obstetrical Memoirs; and by Virchow, in his *Gesammelte Abhandlungen*, etc., published at Frankfort in 1856. During the past six months, also, a series of papers by Charcot and Bawl has appeared in the *Gazette Hebdomadaire*, in which may be found an excellent summary of what has been recorded upon this subject. Dr. Benjamin Ward Richardson, also, in his recently published Astley Cooper Prize Essay on the cause of the coagulum of the blood, has particularly referred to the influence of the puerperal state in favoring the deposition of fibrin during life; and his remarks in reference to the matter under consideration are worthy of careful study.

There is abundant evidence to show that gangrene of the internal organs, or of the extremities, may be produced by the plugging of the arteries which supply them with blood; and the next question that presents itself is, what is the condition of the blood, or of the arterial coats, which favors the formation of the fibrinous deposits which thus occlude the vessels? Formerly nearly every case of spontaneous gangrene was referred to a fatty or osseous degeneration of the arterial coats, and such mortification was supposed to be peculiar to old age. At length, cases were reported occurring even in children, and we suppose that most physicians, who have been long engaged in practice, have met with the disease in persons under fifty. Dupuytren and Syme have strongly maintained that it is due in all cases to arteritis, an inflammation of the lining coat of the artery. Now the experiments of Virchow, and more lately of Mr. Henry Lee, of King's College Hospital, London, have proved that both chemical and mechanical irritants produce their effects only on the external and middle coats of arteries, and on the outer coats of the veins. It has been found to be a matter of great difficulty to produce, by experiment, an effusion of lymph on the non-vascular lining membrane of arteries; but when once the inner lining has been detached by violence, or removed by disease, the tendency is very strong towards the formation of fibrinous deposits, which may be lodged in any of the organs to which such artery may be distributed. Dr. Oke, of Southampton, England, has reported a case in which the brachial artery became suddenly obstructed after abortion, which obstruction he attributed to the spontaneous rupture of the inner coat of the vessel, and the projection of its edges into the tube. He bases his opinion upon the fact that no abnormal action of the heart could be detected when the obstruction in the left axillary artery took place, nor subsequently, the patient having recovered with the loss only of the integument of the thumb and fingers. Although this case is quoted by Professor Simpson, under the head of "Arterial Obstruction from Spontaneous Laceration, and Corrugation of the internal coat of the Arteries," I feel inclined to question this explanation of the case, for in my own patient Professor Lawson was unable to detect anything abnormal about the heart, and I believe I shall, in the course of my remarks, furnish a more rational view of its pathology. The general fact, that a detached inner coat does favor the obstruction of the artery, cannot be questioned, for it has been well established by experiment, and illustrated by disease.

ARTICLE IV.

THE TR. MURIATE FERRI IN NASAL POLYPUS.

BY J. H. REEDER, M.D., OF LACON, ILL.

I do not remember to have seen the above article recommended for the destruction of nasal polypus: if it has been used by any one, an account of it has escaped my notice.

In November last, a little girl, aged about ten years, presented herself at my office, with a polypus of large size, of the gelatinous variety, occupying the left nasal cavity, completely obstructing the cavity, producing considerable deformity by enlargement of that side of the nose.

I attempted its removal by the use of the ordinary polypus forceps, but owing to the smallness of the external nasal opening, they could not be introduced sufficiently high to grasp the root of the tumor. Pretty free hemorrhage and a good deal of pain to the patient was the only result of my endeavors to remove it. To suppress the former, I injected the nostril with tr. mur. ferri, diluted with water, and then forced a piece of moistened sponge into the nostril with the view of dilating it, and told my patient to return in a couple of days, when I hoped to be able to remove the polypus without much difficulty.

The next morning she called, and, much to my surprise, informed me that soon after she arose from her bed the whole mass had escaped from the nostril posteriorly, and had been thrown out on the floor, a semi-fluid opaque mass. On removing the sponge, I found the cavity perfectly free, not a vestige of the polypus remaining. I directed her to throw up the cavity a preparation of the same, much diluted, for a week or two, every alternate day, which she did. No symptom of return has been noticed up to this time.

The second and last case that I have had the opportunity of treating was Mr. Fairbanks, of this city, aged between fifty and sixty years, who has had polypus in both nostrils for more than ten years, and for that length of time has not been able to force a particle of air through the passages, and consequently has been deprived of the senses of taste and smell. His sight was

also seriously affected, being, at the time of his coming to me, nearly blind.

I applied the tr. mur. ferri, very nearly full strength, by saturating the sponge of a small probang, and forcing it as far up the nostril as was practicable, repeating the operation every alternate day. In about a week, both nasal cavities were perfectly free from all obstructions. There has been no return of the polypus to my knowledge. He has recovered the power of tasting and smelling; his eyes have also materially improved.

BOOK AND PAMPHLET NOTICES.

Rapport a la Societe de Chirurgie sur L' Elephantiasis du Scrotum. Par M. Hte. Bon. Larrey, Chirurgien ordinaire de l' Empereur, Medecin en chef, etc., etc.

Report on Elephantiasis of the Scrotum, made to the Society of Surgery. By M. Bon. Hte. Larrey, Surgeon in Ordinary to his Majesty the Emperor. Paris. 1856.

This we have no hesitation in pronouncing the best monograph on this disease ever issued from the press.

A memoir, presented to the Societe de Chirurgie, Paris, by the celebrated Clot-Bey, of Egypt, was referred to a commission, of which M. Larrey was the reporter. For the purpose of studying the subject fully, he was induced to enter upon inquiries that have amply furnished him with materials, of which this work is a digest.

He commences with some reflections on the nature of elephantiasis generally, and shows how it is to be distinguished from elephantiasis of the Greeks, or tubercular leprosy—an altogether distinct disease, and confounded with that under consideration, owing to the employment of a vicious nomenclature. He then views elephantiasis as it affects the scrotum; considers its causes, symptoms, complication, diagnosis, prognosis, treatment, terminations and morbid anatomy.

The writer has availed himself of every interesting case on record; and as many of these are scattered through journals under various names, we can well appreciate the trouble ex-

perienced and the perseverance required in first discovering and then divesting them of much that was calculated to obscure and confuse.

We find Dionis, Cheselden, Morgagni, and even the celebrated Larrey, surgeon-in-chief of the French army, employing, in reference to this disease, the term "sarcocele,"—a word without precise signification, and therefore leading to indistinct conceptions. Then we have had "*oscheochalasie*," proposed by Alibert, who afterwards, by way of improvement, substituted the not less objectionable word, oscheo-terastie-sarcomateux. Richerand, in his effort to improve on this, calls it "lymphatic tumor of the scrotum." Now this designation involves a theory; and in the present state of medical knowledge, nothing is more likely to lead to errors of practice than the adoption of a nomenclature resting for support on a questionable doctrine, or some fancied accordance with a speculation in science.

The writer affirms that no name hitherto applied succeeds in conveying correct notions either of the essential nature or anatomical seat of the disease. He thinks the disease, so frequently circumscribed and located in the scrotum, seems to find, in the mere texture of the parts, conditions of existence different from those that could belong exclusively to the lymphatic vessels. This he thinks countenanced by the fact that in elephantiasis confined to the scrotum (and without complication, we presume), inguinal adenitis almost never exists. He appeals to Cazenave, who, he says, "saw with Biett, even an example of elephantiasis of *a limb*, in which there was no sign of angio-leucitis;" and "Rayer," he adds, "had occasion still better to prove the absence of every trace of angio-leucitis." He denies the correctness of the opinion of Alard, who explains the share the lymphatic system has in its production, by supposing there is a rupture of the lymphatic vessels in the acute form of elephantiasis, and a feebleness of the absorbent in the chronic. He assures us this rupture has never been satisfactorily demonstrated; and besides, he cannot comprehend how infiltration of lymph could produce effusions so various,—serous fluid, gelatinous matter and deposits of fibrine, together with fatty matter, accompanied with transformations of cellular tissue and prodigious thickening of the cutis.

He equally rejects the opinion of the disease being caused by a morbid state of the venous system. The nature of elephantiasis scroti he thinks still undetermined; but if he were required to define it, he would say it was "a tumefaction of the scrotum, characterized by hypertrophy and induration of the skin, and subcutaneous cellular tissue, with alteration of the other coats of the testicles; these organs, for the most part, remaining healthy in the midst of the disease."

The endemic nature of elephantiasis next comes under review. The observations of Larrey (sen.) and Titley would lead us to believe that it is a malady of warm climates rather than of cold countries. It has been particularly noticed in Barbadoes, and extends along the whole eastern coast of South America. In the other islands of the West Indies it is not as frequently seen as in Barbadoes. In Brazil it is common. The medical officers in British India testify as to its frequency in Asia. Bengal, the banks of the Ganges, the Malabar coast, Madras, the island of Ceylon, Surinam, etc., are the localities where endemic influence, in its production, is best shown; and some even say that in Japan, one of every ten persons is thus afflicted. He oppugns the doctrine held by Wise and others, that a humid climate exerts a morbid influence in its development, by shewing the Mauritius, though possessing a remarkably dry atmosphere, to contain a great number of such cases.

In some parts of Africa, elephantiasis would seem to be scarcely known, whilst in others it prevails exceedingly. Passing over Algeria, where it is common along the sea coast, we recognize it more abundantly still in Egypt. There was gleaned the experience respecting it by M. Clot-Bey, the writer of the memoir, that led to this valuable report.

In Europe it is infinitely more rare than in the other great divisions of the globe. It is seen, though exceptionally, in some towns of Spain and Italy, near the coast; but such cases as are seen in Germany, Prussia, Sweden, etc., are probably imported. Titley thinks the disease endemic in some parts of Ireland; but we are disposed to think it as exceptional there as in the sister kingdom. In Rousillon in France, however, Delpech thought the malady by no means rare.

As the etiology of elephantiasis scroti is allowed by the writer to be "still obscure and very vague," we will not dwell on the several conjectures advanced as presumable causes, but proceed to its symptoms and complications.

We learn that its invasion is either acute or chronic, with, we suppose, as in other complaints, many intermediate degrees that obtain, as the symptoms are characterized by more or less acuteness. "Hendy, in the description of the disease, which he has studied more in a general than in a local point of view, assigns to its invasion well marked febrile precursive symptoms, with enlargement of the glands." "The swelling of the parts augments, according to him, with or without new paroxysms of fever." "Sometimes," says Delpech, "it is by the prepuce the disease begins, and it may remain there stationary for a longer or shorter time without making marked progress;" "or, rather, the entire of the skin of the penis becomes hypertrophied, and assumes a coriaceous indurated condition before reaching the scrotum." This case is not frequent. Larrey observes: "Sometimes from the lower part of the pubic region, corresponding to the mons veneris in the female, the swelling begins to extend over all the external genital organs, or perhaps in some one point of the scrotum a nucleus of induration forming, elephantiasis declares itself." This he thinks the most usual form. Again, it may be observed invading at once the whole of the scrotum. Though the writer says the disease may begin without appreciable symptoms, and this opinion is in accordance with the observations of Delpech and Hendy, still, "in most cases, the commencement of the attack is marked by a swelling of the scrotum, with fever and very intense inflammatory reaction." "The reaction ceases, but the swelling persists, and becomes more and more decided as induration makes its appearance. This state may remain stationary without sensible increase of volume, but it almost always makes continual progress,—sometimes slow, at other times rapid. The tumor distends, becoming thicker, rugous and brown; the testicles are forced back, so as no longer to be seen or felt, still they undergo no morbid change necessarily arising from elephantiasis. When the disease is of long standing, yellow and scaly crusts appear,

which, being detached, leave ulcerated surfaces behind, discharging ichor."

As the disease advances, and the penis is removed from view, a provision is made for the passing of urine by the formation of a supplemental canal, as it were, formed at the expense of the skin originally covering the body of the penis. This is drawn down by the weight of the tumor, and thus forms a prolongation or gutter extending from the urethra, often for six, eight, or even ten inches, to the middle or inferior part of the swelling, where it ends in a sort of umbilicus or narrow vulva. In such cases, as "the urine cannot be projected from the surface, but flows *en nappe*," we should expect the usual amount of irritation to arise from its contact with the skin; yet experience does not establish the supposition. There would seem to be, to some extent, a capability of resistance acquired by the hypertrophied skin. "The color of the part is not always brown; its surface is frequently blue or livid, owing to a varicose state of the veins, the dilatation of which is excessive." In one case, we are told the veins were so large that one of them equaled the vena cava in diameter.

This condition of the veins so often met with induced many to consider a morbid state of the venous system as the efficient cause of elephantiasis.

"The tumor is very soft at first, yet unlike œdema, in not leaving after pressure the impression of the finger. It gradually acquires the hardness of leather." "The tumor is sometimes hard in certain points and soft in others, giving, as if, a false sense of fluctuation. Though frequently at the commencement there may have been augmented sensibility, yet in the advanced stages there is scarcely any in the tumor, but rather a sense of inconvenience from its weight and volume." Now this is important with a view to operation, and as regards the propriety of dispensing with the aid of chloroform, the depressing influence of which might be contra-indicated when profuse hemorrhage, amounting sometimes to several pounds of blood, constitutes the chief danger of extirpation. An interesting feature of the disease, noticed by Hendy and others, is the intermittent character of the fever, and the well-marked connection be-

tween its paroxysms and the progressive increase of the local affection.

Some false notions have been entertained respecting the condition of the testicles, and their capability of preserving their function unimpaired in elephantiasis scroti. We have in the report a case in point, and we give as much of it as bears on the question.

"An Arab of the valley of Chelif, 40 years of age, married, in 1830, a widow affected with syphilis, and shortly afterwards he had a running from the urethra and ulcers on the penis. These symptoms disappeared in 1830 without having received any treatment. A pustular eruption was the consequence. The patient, as is the custom of the Arabs, made ablutions of cold water to the genital organs, and from that time he saw the scrotum swell in proportion as paroxysms of intermittent fever seemed to augment the swelling.

"Ten years afterwards, he entered the hospital of Orleansville, with a syphilitic papular eruption, and a well-marked elephantiasis scroti. The tumor measured thirty-eight centimetres in height and thirty-six in breadth."

The morbid mass was removed by M. Mestre with the most favorable result, and the patient, we are told, resumed an intercourse with his wife, whom he had repudiated fourteen years previously, and with whom, during that time, there had been a suspension of conjugal relations. There can be no doubt, however, that inaction of organs for several years, together with the compression to which at the same time they are subjected, must, in many instances, lead to their atrophy.

M. Larrey devotes much space to the consideration of the complications met with in this disease. Without following him in all the details, we remark hernia amongst the most frequent complications. Mr. Esdaile (*Medical Gazette*) refers the disease, in a very large majority of cases, to hydrocele; we may, therefore, include this amongst its complications. Clot-Bey, after having observed a great number of complicated cases, says he never say a patient die of elephantiasis. Larrey, however, suspects "that by the incessant growth of the morbid mass, it may absorb, as it were, into itself, the vitality of the subject,

causing death by consumption; or, perhaps, gangrene may invade the tumor, and the partial mortification of the tissues will destroy the patient." A fact of this kind seems to have come under the observation of Hendy. This kind of tumor seems not disposed to degenerate into cancer. Larrey, at least, never saw a case thus terminating. He, however, gives the case of Delacroix, originally related by Imbert de Lonnes, and commented on by Boyer (*Traite des Maladies Chirurgicales*, tom. 10), to express his doubts of its being a case in point, to prove the disease terminating in cancer.

He questions whether the unaided powers of nature be equal to the removal of the complaint in any instance; and thinks there is very little chance of a cure even from the ordinary resources of medicine, except, perhaps, at the very commencement. Nevertheless, he quotes Hendy's celebrated case (vide 22nd, case "Glandular Disease of Barbadoes"), where a man, affected with elephantiasis, awoke one morning having an abundant moisture about his thighs, which proved to be water effused through a fissure or crack in the diseased skin. A few months after this there was a recurrence of the evacuation, and the part was reduced almost to its normal volume.

As the writer details the structure in this disease, he is particularly clear and satisfactory. "The skin at first is not altered; it may even get thin from distention but it soon hardens; becomes thick and rugous; assumes sometimes the consistence of half-tanned leather, even to the thickness of three inches. It then acquires extraordinary extensibility. The epidermis grows thick and scaly. In most cases, the rete mucosum appears distinct. Chevalier saw the papilla exceedingly elongated, enlarged and prominent on the cutis. The normal texture disappears, and becoming hypertrophied, the tissue grows homogeneous, of a white color, of a brawny consistence, very hard, like scirrhus, without appearance or trace of fibres." "Cysts, as it were, are met with in the texture of the altered cutis, and within them there is a variable quantity of serous fluid." "The subcutaneous cellular tissue essentially participates in this hypertrophy by the thickening of its layers, as much more dense as they approach the cutis, and terminating by forming cellulo-

fibrous cavities filled with albuminous or gelatinous fluid. This tissue, when indurated, frequently presents, like the cutis, a cartilaginous texture, and the matter secreted or accumulated within its cavities becomes sometimes so condensed as to form hard cretaceous and schirrhus-like nuclei. These nuclei of altered cellular tissue in some cases are isolated, constituting distinct tumors in the midst of the morbid mass, varying in their nature and volume."

The endemic nature of the disease, its peculiar mode of growth, progressing for years, and the very decided change of structure, would lead us to suppose it was not very amenable to medical treatment, and in this opinion most observers coincide; yet we cannot resist the evidence supplied by men worthy of credence, that not only has it been removed by suitable means, but that it has even disappeared completely from mere change of residence. Gibson, in the Institutes and Practice of Surgery, gives a case of this kind, and a somewhat similar one has been detailed by Larrey, yet he remarks that on the other hand, patients, even young, have come from the colonies to Europe, and, though aided by treatment, have experienced no amelioration.

"Antiphlogistic remedies, local bleeding, emollient poultices and fomentations, baths used in the beginning, frequently renewed and seconded by suitable diet and hygienic precautions, have procured happy results in the practice of Clot-Bey." Larrey doubts if they were lasting cures. He condemns general bleeding, unless employed with great reserve. This is in opposition to Rayer's practice, with which general bleeding entered as an important curative means, and who thought this opposition unfounded.

The writer has but little faith in the efficacy of sudorifics, and shares the incredulity of Delpech in this respect. "Avec quelle defiance," observes the accomplished surgeon of Montpellier, "ne doit-on pas accueillir des observations de guerison operee par des sueurs on telle autre evacuation augmentee, quand il s'agit d'une malade qui ne se complete qu' a la faveur d' un grand nombre d' annees!" Vomits, antimonials combined with mercury, mineral acids, the external application of dilute sulphuric acid, solutions of bi-chloride of mercury, of muriate

of ammonia, and gradual and uniform compression and shampooing, are some of his many means used. In India, English surgeons have been using preparations of iodine; and a case is given in the *Lancet*, July, 1846, by Dr. Brett, attributing a cure to iodine.

The intermittent character of the fever so frequently accompanying the invasion of the disease, suggests the use of quinia, but we have no facts in reference to its efficacy, and in want of such, it is simply proposed for future trial. Some temporary advantage has been gained from arsenic, but it has never accomplished a cure. Setons, caustics, the actual cautery, punctures, scarifications, incisions, blisters, have all been proposed, used and vaunted, but on a close analysis of the supposed successful cases, the eye of science can often detect some fallacy, some error of diagnosis. In many instances, hæmatocele has been mistaken for elephantiasis scroti. "When the tumor is recent and as yet little developed, we may try with some hope of success local bleedings, emollient applications, sulphate of quinia, hydriodate of potash, mercurial frictions, methodical compression and shampooing." Should these fail, we have no resource except in extirpation. Even to this day, says Rayer, the question of the propriety or impropriety of extirpation is not settled. Indeed, we have a host of witnesses to the danger and frequent inefficacy of the operation. Alard assures us that those operated on have either become affected with elephantiasis elsewhere, or have sunk under some inflammatory affection of the viscera. Chopart opposed it from the danger of hemorrhage, yet surgeons seem now beginning to entertain less apprehensions of the operation itself and of its consequences.

Since Baron Larrey and Roux led the way in successful operation, others have performed it, and in the majority of instances with success. But above all, Esdaile of Calcutta has signalized himself. He has operated more than 160 times, and lays down the following rules for guidance: "When the constitution is good, and the patient not more than 40 years, and the tumor does not exceed fifty pounds in weight, it may be possible to save the testicles; but if the age and weight exceed these proportions, an effort should not be made to spare them,

because the patient may die of hemorrhage during the attempt made to accomplish it, and even if he should not, the testicles may be found useless and require removal afterwards." As to the penis, it has always been spared, with one exception, by Mr. Esdaile, whatever might be the morbid mass removed. The mortality, he assures us, has been but five per cent., and in no instance has death been directly occasioned by the operation; and when it did occur, it was at a distance of many days, weeks or months afterwards, and took place from various morbid causes, not immediately connected with the operation. Mr. Esdaile is the writer who has so reprobated the employment of chloroform, for which he substitutes mesmerism, on the grounds that as the latter exalts, whilst the former depresses the nervous system, the peculiar applicability of this agent is sufficiently obvious.

In the operation, certain objects must be kept in view, although particular conditions of the tumor may occasionally require us to vary our proceedings. Thus, sufficient covering must be retained for the penis, testicles and their cords, the remainder of the tumor removed, and the several steps of the operation gone through with as much rapidity as is consistent with the preservation of the genital organs. Baron Larrey's method consisted, 1st, In two incisions, commencing at the orifice of the prepuce, obliquely carried under the testicles of each side; 2nd, Dissecting the tissues in the interval of the incisions; 3d, Removal of the diseased mass. In this manner also, Titley and Græfe operated. Clot-Bey substitutes for the oblique two semilunar incisions, extending from the pubis to the perineum. This mode of operation is termed "*L' extirpation sans anaplastie.*" "*Extirpation avec anaplastie*" consists in raising three flaps of healthy integument,—two lateral, of semilunar shape, and an intermediate one. These are to cover the penis, testicles and their respective cords. A third method, ascribed to Redlich, is, after removing of the tumor, to restore to the penis its original covering. Then there is Lenoir's method, characterized by an incision through the whole thickness of the scrotum, passing anteriorly and in the middle line; the penis is now exposed, and the testicles discovered, dissected and raised with

their cords; then two lateral flaps are cut, and lastly the tumor removed by bold and rapid incision. The patient should be secured as in operation for stone; two assistants ought to have charge of his legs, and one or two of the tumor. Should this be very large, it is proposed to use mechanical means for raising it. "Before beginning operative proceedings, the tumor should be so raised as to allow the blood to return into the general circulation. Search should also be made for a hernia, and if such exist, previously reduce it; and in the operation, the sac should be opened, and tied afterwards at the external abdominal ring. Should the complication be hydrocele, instead of puncturing or incising it, excision should at once be made."

We now take leave of M. Larrey and his able report, with the conviction of having, from the short space allowed us, failed to present it in a light best suited to reflect facts and observations that must be read to be duly appreciated. We trust, however, our readers will see, even through the imperfect medium of an editorial notice, as much as may induce a further acquaintance with the report itself, the perusal of which will amply compensate for the required time and labor.

[In order to give a more adequate idea than can be conveyed by words alone of the magnitude of the growth which sometimes reaches the enormous size of 125 pounds and over, we have taken pains to have prepared the annexed figure, which accurately represents the original, somewhat reduced in size.]

ELEMENTS OF MEDICINE. By SAMUEL H. DICKSON, M.D. Philadelphia: Lea & Blanchard. 1859.

In the preface to this work, the author states that "it is intended as an aid to young men who have engaged in the study of medicine, and to physicians who have recently assumed the responsibilities of practice."

In this age of vain display and empty pretension, this unostentatious statement may give some a very inadequate notion of the merit of a work, which we think not only eminently calculated to answer the end proposed, but also well adapted to be profitable even to those who may deem themselves far in advance of their juniors in a knowledge of their profession. There pervades the volume an easy, unrestrained mode of expression, that cannot fail to carry the reader, almost imperceptibly to himself, over some of those stumbling blocks of science that so frequently in limine discourage the student. Nothing having a practical bearing is omitted. The various theories, under the head of etiology, that have influenced practice are brought under review, and with as much brevity as is consistent with the subject and the design of the work, are subjected to a searching analysis.

We cannot avoid expressing our commendation of the strictly logical accuracy with which the author reasons. This is almost a new feature in medical works; to the absence of which may be attributed the slow progress medicine has made in comparison with other departments of science.

Though we thus favorably notice this performance, yet we must pronounce it an unequal one. It is divided into two parts, —"General Pathology, and Special Pathology and Therapeutics." The former has our unqualified recommendation; the latter, with perhaps the section on fever excepted, does not realize the expectations the excellences of the former had led us to entertain. It would appear as if the author, with a view to render the work compendious, and thus place it within the reach of students, has done himself an injustice, by occasionally sacrificing to conciseness what is necessary to clear conception —graphic and full description; in short, where we want accurate delineation, we have but a hasty and imperfect sketch.

A man so capable of dealing with the abstruse things of the profession, as the perusal of the "General Pathology" will at once show, could with much more ease acquit himself equally well in "Special Pathology and Therapeutics."

On the whole, it will prove a most useful manual, which should not only be in the schools, but deserves a place in the library of every physician.

CORRESPONDENCE.

EDITOR OF CHICAGO MEDICAL JOURNAL:

DEAR SIR,—The following cases having come under my notice, are of so unusual a character, that I have concluded to report them (if deemed worthy) through the columns of the "Journal," partly for the sake of obtaining information, and that, should any of your readers meet such cases, they may have the benefit of my observations.

Three cases have occurred in the same family. The first I did not see, but it was described to me by the family physician as "a case of croup, accompanied with pneumonia, attended with some ulceration of the mucous membrane of the mouth and throat." Termination—fatal.

CASE II.—A. E., five years old, was taken ill on Monday night, January 10th. The parents being very much alarmed, and unable to call Dr. C., the family physician, on account of ice in the river, called upon "an eclectic," who pronounced it croup, and, I suppose, treated it accordingly, until Wednesday, when he gave it up, and Dr. C. and I were summoned.

The patient was so much exhausted when we arrived as to give us little hope for the benefit of medical interference. The urgency of the symptoms, however, induced us to administer an emetic, which, acting, afforded temporary relief.

We regret the extreme prostration which prevented a satisfactory examination of the throat, but we could see the ulceration upon the tonsils. The parents informed me that the child had had a sore mouth and throat about a week.

The immediate danger being from catarrhal symptoms, we prescribed:

℞	Comp. syr. squills,	℥j.
	Copaiva,	℥ss.
	Spr. nitre,	℥ss.

Ft. expectorans.

Of which we gave half a teaspoonful *pro re nata.*

This patient also died as of croup, on Thursday.

The post mortem appearances—external,—as described by the friends, were: unusual rigor mortis; throat swollen even with the chin and discolored; *knotty appearance* of parietes of abdomen, with discolored patches.

Case III.—Girl, aged seven years.

At the time of my first visit, my attention was directed by the parents to this child. She was running about the house, but had this same croupous cough; and I was astonished to find already developed, extensive ulceration of the tonsils, of a pearly color and elevated edges.

Ordered solution of nitrate silver, thirty grains to the ounce, applied twice a day to ulcerated surface. Used expectorant as before prepared.

Friday, 14*th*. Was called to see her. Found her with high fever, furred tongue and anxious countenance. Cough better. Passing rapidly through this first stage, as it were, we find her vomiting a tough albuminous fluid, afterward serum colored with bile. Frequent alvine discharges from the bowels, resembling meat washing. Intense pain, extending from the throat to the stomach and bowels, causing her to strike herself and cry out in the extremity of her suffering.

While upon symptomatology, allow me to digress so far from this point as to follow out the fatal cases in the third or last stage.

Increase of croupous symptoms; tympanitic distention of abdomen, with intestinal pain, increased by pressure; torpidity of bowels; suppression of urine. Death.

To return to the case in hand.

We find that in each case there has existed evidence of abdominal lesion, as well as the post mortem appearance of the

parietes of the abdomen. The inflammation in the throat was apparent; and the intense thirst, tumefaction and tenderness of the bowels, all indicated, as I thought, distinct marks of intestinal derangement, not unlike what we often find in cases where we have inflammation of the mesenteric glands and glands of Peyer. With that view of the case I prescribed—

℞ Nitrate silver, grs. viii.
Liquorice root, pow'd, " xxiv.
Syrup, q. s. Ft. mass.

Make 24 pills.

Of these I gave one every three hours. Increased copaiva in expect. to ʒj., and continued as before. This course was continued until Saturday evening (twenty-four hours), when I ordered a portion of castor oil, and with it thirty drops oil turpentine. Operated well, bringing away long shreds of mucus.

Sunday Morning. Continued pills. Bowels still rather tympanitic. Ordered—

℞ Sub. mur. hyd., grs. vi.
Ipecac., " vi.

Ft. chart. vi. Gave one powder every three hours.

9 *o'clock p.m.* Improving. Less tympanitic; less pain. Discontinued pills.

Monday, 9 *a.m.* Stop powders; gave two blue pills. Operated.

1 *o'clock.* Discharge more healthy in appearance; patient feels comfortable. Directed wine whey and serpentaria infusion.

Not being able to cross the river, did not hear from her for near a week, when I called, and found her sitting up, and, excepting a little irritation about the fauces, enjoys her usual health. I neglected to state that the solution of muriate silver was continued twice a day to the throat during the course of treatment.

The difference in treatment is obvious. The first cases were treated as for laryngeal disease, while in the latter, comparatively little attention was paid to croupous symptoms, and remedies were administered for an ulcerative inflammation of the alimentary canal.

I confess I am at a loss for a name for the disease. Perhaps

some light may be thrown upon the case by stating that there is an hereditary scorbutic taint in the family, although not showing itself in this younger generation before.

Is this a species of scorbutis? a violent form of typoid fever? or, could that inflammation extend, in any way, from the œsophagus to the trachea and produce such symptoms? I think not.

If my communication should be considered worthy a place in your Journal, I would be pleased to hear from some member of the profession upon the subject. Yours truly,

W. S. ROBERTSON.

Columbus City, Iowa, Jan. 26th, 1859.

[The three cases detailed by Dr. Robertson present symptoms of diptherite, a disease that has been prevailing in England and America within the last year to a fearful extent.

We congratulate our correspondent on his success in saving even one patient out of the three. The same good fortune has not attended the efforts of others when they had to deal with the disease under conditions marked by the same malignancy of development. We, however, attribute the favorable result in the third case more to the application of nitrate of silver in solution to the fauces, and to its tonic properties when prescribed in pills, than to the purgative action of the castor oil and turpentine.* Neither can the improvement observed in this case at 9 o'clock p.m., on Sunday, the 16th, be fairly attributed to the action of the calomel, considering that it was ordered on that morning, and not more than one grain every third hour prescribed. Turpentine has certainly been recommended by some who have given their attention to the disease. Dr. Perry advises ʒij. of the ol. terebinthinæ to be rubbed up with the yelk of egg and ʒxij. of syrup; one teaspoonful to be given in milk every second hour.

As diptherite is just now exciting much interest, and as our table is covered with the results of the most recent inquiries respecting this disease, we purpose, in the October number, to

* We do not take into account the wine and serpentaria, as they do not seem to have been prescribed until the danger was over.

present our readers with whatever in reference to it is contained in recent publications deserving of notice. At the same time, in giving a summary of opinions gleaned from American and foreign works, we will endeavor to unravel from the confusion a subject which, from its having several points in common with other diseases, appears, at first view, inextricably entangled with them, though really separated by essential differences.]

EXTRACTS.

On Macula Cachectica. By Dr. James Whitehead. (Third Report of the Clinical Hospital, Manchester.)

Ranking's Abstract, 1859.

On the Treatment of Purpura Hæmorrhagica. By Dr. S. L. Hardy, Physician to the Hospital for Diseases of Children, Dublin. (Dublin Hospital Gazette.)

Idem.

We notice the observations of Drs. Whitehead and Hardy together, as they refer to the same disease, though presenting under different phases. We quote from Ranking's Abstract the following remarks of Dr. Whitehead:

"A maculated state of the skin is frequently met with in the children of this class of people, consisting of small circular spots, the size of face freckles; not, however, occupying the face and hands as freckles do, but every other part of the body except the feet. They seem to infest parts covered with the clothing, while freckles are only seen on parts exposed. They have a purple color, like the maculæ of typhus, not a pale yellow like freckles, and are unassociated with any form of disease saliently expressed; but they seem, nevertheless, to indicate a depraved habit of body. The skin has a sickly, depraved pallor, the flesh is flabby, the temper fretful, and the energy subdued. The parents appear to regard their presence as natural and unavoidable, as they are never the subject of treatment, nor is attention directed to them when the body is examined for other purposes. They seem peculiar to the lower classes, and are caused by sloth and personal neglect, as they are never met with in the offspring of the cleanly and thrifty. There is no doubt that this macula cachectica is in reality a disease of the

skin, due proximately to interrupted cutaneous transpiration. Its cause is uncleanliness. Such children are seldom washed, except the hands and face, oftener than once in many weeks, and even then very imperfectly and without the use of soap. When the children get older, and the washing process is left to themselves, it is still less perfectly done, and the whole body is not washed, in the vast majority of instances, once in several years. In such persons the spots which appeared in infancy are often seen up to adult life."

We would not have transferred so much of this "Report" to the columns of the "Journal," if it were not for the purpose of showing how distorted views and partial statements prove, in medicine, a fruitful source of fallacy. We deny that the disease in question is ever caused by mere uncleanliness, or that "it is peculiar to the lowest classes." Under the title *macula cachectica*, our readers may recognize *purpura simplex*, a disease by no means uncommon, particularly amongst the ill-fed children of the poor. Still, we must not suppose it confined to such. We have seen it in children where neither poverty nor want of cleanliness could be suspected of having any share in its production. Practical men view it as a disease proceeding from a general deterioration of the solids and fluids of the body —one in which there is a change in the crasis of the blood. This is defibrinated, and escapes from vessels that are impaired in their integrity. We do not object to the "washing process" as an important hygienic means, but should think it, by itself, very inadequate, indeed, to remove the cachectic condition of the system. Iron, quinine, and tonics, combined with astringents (having previously administered purgatives), will be likely to prove more efficient remedies, and more consistent with our notions of a rational *methodus medendi*.

In the same number of *Ranking's Abstract*, there are four cases of *purpura hemorrhagica* detailed by Dr. Hardy. These all recovered under the use of tincture of larch bark. The virtues of this tincture are, we presume, due to turpentine and tannin. These certainly have been found useful remedies in such cases, even when administered separately, and there may be some advantages in prescribing them in union, as they are in the tincture. Tannin and gallic acid are, with some, favorite

medicines in *purpura*, and more than thirty years ago, turpentine was extolled by Whitlock and Magee (*vide Edinburgh Medical and Surgical Journal*, vol. xviii, p. 540, and vol. xvii, p. 307) for its efficacy in the same disease. The dose of the tincture varies according to age, from eight drops three times daily, to fifteen drops every two hours. It was given in lemonade, which generally constituted the drink of the patient. The food consisted of vegetables and fruit.

Displacement of the Coccyx sideways. By Dr. Rœser. (Prager Vierteljahrschr, Nov. 18th, 1858, and Edinburgh Medical Journal, Nov., 1858.)

Case.—"A corpulent woman, aged 36, fell from a table on a chair, so that its back came right between her thighs. She instantly felt severe pain in the coccyx, but continued able to move about till evening, sitting increasing the pain very much. In the evening, the pain was so great, extending up the spine, that she was obliged to go to bed, and soon after could neither turn nor rise up. After a painful night, R—— found this otherwise blooming woman quite immovable, with distorted features; she complained of violent pain in the coccyx, and a painful tensive drawing feeling from below, up to the neck, which also extended down the arm. She could move the forearm a little. The slightest motion of the body or head to one side was impossible, and still more so, sitting up in bed; confused headache, and some mental disturbance, were also present. She made no complaints of her lower extremities, nor of her arms, and urinated without difficulty. After placing her on her right side, a small swelling, the size of a hazel nut, was felt near the notch of the buttocks, next the left ischium, which on closer examination proved to be the coccyx separated from the sacrum, and forced from the mesian line towards the left ascending ramus of the ischium. The obtuse end of the sacrum could easily be felt between the buttocks. By placing one finger in the rectum, the dislocation of the coccyx could be still more easily felt. Forcible pressure downwards and towards the right buttock caused it suddenly to glide into its normal position, whereupon the patient declared herself relieved, herself as if roused from a dream, and all her pains vanished. She could move about freely, but pain in the sacro-coccygeal region prevented her sitting up. Her expression was also

completely changed. After a few days, a dull pain in the sacro-coccygeal region, preventing sitting, was all the uneasiness that remained; and in five days, all of this that was left was a slight burning sensation at the injured spot."

"The irritation of the spinal marrow observed in this case, in which only the very lowest filaments could have been disturbed, and which nevertheless sent the stream of disturbance to the brain itself, is a most interesting example of mechanical irritation, as evidenced by its instant disappearance on the reduction of the dislocation."—*Ranking.*

This must be a very rare accident. Many surgeons even deny the possibility of its occurrence, and particularly so after forty years of age. Accidents are by no means unusual in the sacro-coccygeal region, but then, when severe, and the subject past thirty years, it is a fracture, not dislocation, we have to deal with. And as we reflect on the mode of union subsisting between the saocrum and coccyx; on the security provided for, by a strong posterior ligament, by a fibro-cartilage, similar to what exists between the vertebræ, stretching from the base of one to the point of the other, and by a muscular apparatus extending from the coccyx to the ischium, it becomes evident that an injury sufficient to alter the relations of these bones, to such a degree as to cause complete luxation, must be attended not merely with such symptoms as occurred in the case detailed, at the time of, and immediately following the accident, but will most probably give rise to extensive abscess in the loose cellular tissue around the rectum. The ramifications of the middle sacral artery are in almost all such cases ruptured, and the blood effused generally leads to suppuration. Even where there is neither fracture nor dislocation, contusions in this region often induce grave symptoms. Though the contusion leaves no visible traces — no ecchymosis — a pain darting from the point of the sacrum extends to the sacral and femoral regions, attended with great suffering in defecation and urination. About the fifth to the seventh day, a rigor takes place, with a sense of fullness and pulsation in the part. An abscess forms, on opening which we find the rectum denuded, and most probably, also, necrosis of the coccyx.

CURIOSITIES OF MEDICAL LITERATURE.

Under this head we purpose occasionally to chronicle some of the "sayings and doings" of members of the medical profession, of reputed sanity; not with a view to the sanction of unauthorized proceedings, but as a warning to others to avoid practices that can only result in disgrace and trouble.

On the Delivery of the Child by Turning, as a General Rule in Labor. By Mr. E. Garland Figg, of Borrowstowness. (Medical Times and Gazette, Ranking's Abstract.)

In this paper, Mr. Figg attempts to show, not only that delivery by turning is preferable to delivery by the forceps in cases requiring operative interference, but that turning is the rule to be adopted in general cases. He tells us that he has attended sixty labors since writing these papers; that only three of these were conducted as head presentations, and that of the remainder two were breech presentations, and fifty-five deliveries by turning. As the results of this astonishing practice, we leave Mr. Figg to speak for himself:

"With regard to the children, they are generally still from two to five minutes, and in some cases, half an hour's duration. In many instances, the first arm brought down is a little painful when moved, for a day or two. I confess with humility, I have even broken four arms, which, though they occurred in cases of great pelvic contraction, were attributable to my own mismanagement in pressing over the shaft of the os humeri instead of following its line to the elbow. Should you commit the same error, with similar result, be not too candid to the relatives, but at once by your own dictum transubstantiate the injury into a slight sprain received by the infant striking its shoulder against the backbone of the mother while actively prosecuting its uterine gambols. It will pass current, more especially if you appeal to her experience, when it is sure to be corroborated by a quotation and the day and hour of the occurrence. Two slips of pasteboard applied, with a strip of calico a yard long, remedies the evil in ten days. In establishing a comparison between the advantages derivable from turning in primiparæ and multiparæ, I believe there is a preponderance of argument in favor of the former. In a primapara the os uteri is more in the axis of the pelvic brim, the body of the organ being more inclined to the perpendicular, and not projecting anteriorly, as in the frequent parturient; hence, in the former case, the uterine efforts of the last month previously to labor lodge the os and cervix, inclusive of the head, low in the cavity of the pel-

vis, not only assuring the practitioner by tangible proof of the perfect capacity of the brim, but also presenting the best arrangement for the co-operation of the uterus with his extractive efforts. In the latter case, from the yielding of the abdominal muscles in former labors, the fundus bearing forwards throws the os in the direction of the spine, rather than the pelvic cavity. Hence, until the contraction of the muscles in some measure restores the proper axis, no advance can take place. The advantage in the second particular is briefly explained, by stating that in a primipara the antagonistic force is directly in line with the extractive. In a multipara it is entrenched round a corner. Again, in a primiparal case, you have good grounds for the conviction that in obviating the perineal stage, you limit the labor considerably; while in the latter patient an hour's suffering might conclude the case. Be they right or wrong, these are the sentiments that have guided my conduct in a large majority of my cases lately, experience appearing to justify in happy results what theory dictated in sound reasoning. I hope I shall soon lose all mental impressions of a head lingering on the perineum, or stationary from failing pains for hours. My primiparal patients are up in four days, without swelling of vaginal muscles, nymphæ or labia; *and what to me is perfectly unaccountable*, with very slight laceration of the perineum. I have had but one maternal death where the infant was turned, and that occurred five days after the event, by inflammation of the peritoneum of a patient, who with contracted pelvis had submitted to the ordeal to produce her sixth full-timed dead child. If I be entitled to any credit at all, it is for the candid avowal of a practice that some, under fear of professional censure, would have adhered to, but concealed."—*Ranking's Abstract.*

We find from statistics now before us, that out of 169 cases of turning, where the result to the mother is specially mentioned, 11 mothers died, or 1 in 15, and in 542 cases where the result to the child is detailed, 182 children were lost, or rather less than one in three. This is the result of the practice of Mad. Lachapelle, Mad. Boivin, Clark, Collins, Cusack, Gregory, Beatty, Churchill, etc. Their names are sufficient guarantee for skill. Mr. Figg states the children were generally still-born, some for "half an hour's duration," and as he tells us of no deaths amongst them, we infer he implies there were none amongst the sixty labors. But what is to us just as

"unaccountable" as to himself, if the children escape death, how the mothers that are primiparæ escape laceration of the perineum. We appeal to the experience of any midwifery practitioner, if some of the most anxious moments of his professional life have not been caused by cases where turning was necessarily resorted to in primiparæ, and where the chances of the infant's life and of the mother's perineum lay in the balance. Yet Mr. Figg proposes to manufacture recklessly — we may almost say unscrupulously — this very state of things, which to others so often involves a distressing alternative — either a dead child or a mutilated mother. He says his practice is based on "experience" and "sound reasoning." Quite the contrary; it is in direct opposition to the experience of the most successful practitioners, and utterly at variance with humanity, nature, and common sense. We therefore refuse to accept his conclusions, and after the sage advice he so conscientiously gives for deceiving the friends of our patients, he will excuse us in telling him that even his facts are open to suspicion.

A case of Cesarean Operation performed with success. By M. Borie. (Memoires de l' Academie Imperiale de Medicine. Paris, 1857-58.)

"This was performed at the Maternite at Tulle, on the person of a ricketty but hardy primipara, aged 29, in whom the space between the sacro-vertebral angle and the triangular ligament of the symphisis pubis measured but from five to six centimetres at the utmost. A living child was delivered, and the woman recovered rapidly. Chloroform was employed, and a longer incision than usual was practised in opening the cavity of the abdomen."—*Medico-Chir. Rev., July*, 1859.

On the amount of utility of Permanent Exutories in the treatment of Chronic Diseases. By M. Zuskowski.

1st. *Permanent Exutories in Chronic Phlegmasia.*—Lesions which result from chronic inflammation, when exempt from all diathesic influence, are generally, even after a very long period, susceptible of resolution. It is especially in disease of the

articulations that the greatest number of successful cases have been observed. Of 58 of the cases of Pott's disease and white swellings, the exutories were the sole means employed in 22; they were used in conjunction with other means in 12, and in 24 they were resorted to after other measures had failed. A no less positive amount of success has attended their use in chronic myelitis and the consequent paralysis—44 instances of recovery from such paralysis, with or without vertebral disease, being on record. Of 20 cases of amaurosis, 7 were treated exclusively by exutories, and 13 after the failure of other means; permanent success resulting in the whole. So with 30 cases of various descriptions of ophthalmia, the great bulk of which had previously been treated without success. Besides these may be mentioned old cases of pleuritic and peritoneal effusion.

2. *Exutories in Tuberculization.*— The author reports ten instances of pulmonary consumption treated with success by exutories. These individuals were all the issue of healthy parents, with no antecedent phthisis in their families. There were no concomitant nor anterior abdominal affections, signs of scrofula, or disease of the bones or joints, but all the patients had cavities at the upper part of the lung, accompanied by the usual cortege of symptoms.

3. *Exutories in Neuroses.*—Their beneficial effect has been observed in ten various forms of these, whether relating to modifications of sensibility, motility or impressionability, or to aberrations of the perceptions of the intellectual powers, or of the moral and affective faculties. Seeing, then, how useful this means may often prove, how comes it that it has fallen into discredit? By reason of the abuse which arose from its indiscriminate employment, whether suitable indications were present or not. Among the conditions which should oppose the use of permanent exutories as a means of treating chronic disease, are the following:

1st. *Deep seated alteration of structure.*—For example, the atrophy or melting down of an organ, which has already given rise to symptoms of resorption or colliquation. In subjects placed even in the most favorable conditions, if the organs have undergone deep-seated alterations, if the general reaction is continuous, giving rise to disturbance of some important function, and especially if nutrition be already deeply impaired, not only have exutories no longer any chance of success, but they may even hasten the fatal termination.

2d. *Degenerations.*—Without speaking here of primary heteromorphies, for which no one would think of applying exutories,

we allude to those insidious transformations of simply indurated or hypertrophied tissues, which are brought about either by the sole effect of chronicity, or under the influence of some diathesic or hereditary condition.

3d. *Tuberculization.*—Although exutories may exert a beneficial action in cases of isolated tubercles, limited to a circumscribed portion of an organ, they offer no chance of success in general tuberculization—that is, when the diseased process has been set up in several organs at once, or even in several parts of the same organ.

4th. *Hereditary influence.*—This exerts great pathogenic influence in chronic disease. Next to tubercular affections, it is in the neuroses especially that it plays so immense a part. In the examples of epilepsy and insanity, in which exutories have proved useful, the patients have been exempt from this fatal influence. Unfortunately, these are the rarest cases; the immense majority are subjected to hereditary influence, and exutories will fail to exert any salutary effect on them.—*Medico-Chir. Rev.*

EDITORIAL.

OPINIONS OF THE PROFESSION CONCERNING THE "REFORM SCHOOL."

We have taken pains to mark every notice of the medical department of the Lind University which has fallen under our observation since the issue of the circular of the proposed school. Thus far its reception has not been flattering. The little axe carried down to Louisville to be ground was rejected; the prospect at Decatur was so poor that no attempt was made to get an endorsement directly, and an indirect one to get a member of the faculty recommended as a candidate for President of the American Medical Association next year signally failed, the society thinking, apparently, that there might be a man in all New England capable of filling such an office.

Among the medical journals few seem to have regarded it as deserving of comment. The exceptions are the New York Monthly *Review*, the New Orleans *Medical News and Hospital Gazette*, the Cleveland *Medical Gazette*, and the Nashville Monthly *Record*.

The first of these, edited by Austin Flint, jr., who, to alter a proverbial phrase a little, may be said to be "a spark from the old stove," has the following paragraph respecting it:

"Prof. N. S. Davis, formerly the editor of the Chicago *Medical Journal*, who was connected also with the Rush Medical College, withdrew, with several of the faculty, and established the Lind University upon the principle which Prof. Davis has so long advocated. Whether it will be a success remains to be seen; we regard as extremely doubtful both its success and its benefit to the cause of medical education."

The New Orleans journal, edited by Drs. Brickell and Fenner, intimates its doubts gently, as follows:

"We notice that there are eleven professorships, and there are junior and senior departments, in the first of which the students attend the lectures on five branches, besides dissecting; and the second they attend lectures on six branches, besides clinical lectures and dissecting. All our readers know we are the strong and practical advocates for improvement in medical teaching, and we hope this scheme may succeed, but we can't exactly see through it. We fear the matter is a little too complicated."

Prof. Weber, of the Cleveland *Medical Gazette*, which we have already announced, makes the following remarks, full of force, concerning it, after giving the plan of instruction:

"Now it requires a good deal of imagination to be able to compare this new mode of teaching in the Lind University with the systematic training of the medical student in the old schools of Europe, where eight terms, and sometimes ten, are required, and the student hears lectures on one subject not only *once*, but two or three times over again.

"If the medical student of our country is to learn his profession by listening to lectures; *one course* on one particular subject, ever so ably and minutely delivered, and regularly attended, will not qualify him to understand the subject completely. It requires *time* and *study* to comprehend *any* of the branches of the medical sciences thoroughly. Ever since we have been connected with medical teaching we have felt the deficiency of our present system, and we will hail the time when all the institutions of our land shall raise the banner of TRUE IMPROVEMENT in the great cause of medical education. But we must have an entire revolution of the present condition of things; a little stirring, a little change will not benefit the student nor

the profession, nor those who brought this change about—*experientia docebit.*"

Prof. Wright, of the Nashville Monthly *Record* for July, goes more into details. His objections may be enumerated as follows:

1. Of the list of Professors' names paraded, one is an Emeritus, and two others are given twice, so that this pretended increase is a deception.

2. General pathology and physiology should be taught by the same chair. It is a mistake to separate them. Prof. Wright may justly think the chair of public hygiene superfluous.

3. Assigning medical jurisprudence to an aged gentleman, instead of a physician, renders that chair practically of little value, as the principal facts of the science are found in the fields of chemistry, anatomy, physiology, obstetrics, etc.

4. The division of surgery into two parts is objected to.

Prof. Wright also makes an objection to the fees, which we deem less feasible than each of the former, which are all well founded.

These are all the notices of the "reform school" presented in our exchanges. Diminishing the number of lectures and the number of terms required is evidently not regarded as "reform."

CHICAGO CITY HOSPITAL.

This institution is now open for the reception of patients, under the care of the medical board already noticed in the Journal. The terms of service of Drs. Brainard and Miller will commence Oct. 1 of each year, and continue four months. Patients from a distance can receive the benefits of the institution by paying board, without further charge.

It is a source of no little gratification to us to see this fine building put at length to the use for which it was intended, and so perfectly adapted. The opening of it has been effected in face of a strong opposition coming from the homœopathists, and a part of the medical staff of the so-called Mercy Hospital, who in this matter have co-operated with a zeal and perseverance indicating a full understanding.

We have already had occasion to state the terms upon which that commencement opened, and the dishonest way in which those who furnished it had been deprived of attendance in it. This, since the opening of the City Hospital, has become a matter of little consequence, as the city and county poor will soon have a building adapted to their wants, and the sooner the Mercy Hospital is closed the better it will be for all parties. The number of cases of typhoid fever, etc., occurring among the students who have visited it sufficiently indicates the condition of its inmates. It is but justice, however, to state that those who have charge of it, even if more accustomed to the proper conducting of a hospital than they are supposed to be, could but imperfectly remedy the evils experienced, as the building was originally intended for other purposes, and is not adapted to its present uses.

How the physicians who are connected with it, and who have made every effort to defeat the opening of the City Hospital, in concert with irregulars, by repeated false publications in the daily papers and otherwise, can justify themselves, we are at a loss to conjecture. Certain we are that the enlightened medical profession of the North-West will not in any manner endorse such a proceeding.

☞ The book notices, selections, etc., of the present number of the Journal, have been prepared under the direction of W. Godfrey Dyas, M.D., Fellow of the Royal College of Surgeons, Ireland, late Demonstrator of Anatomy in the University of Dublin, etc.

Dr. Dyas is an accomplished scholar, an experienced editor and reviewer, and we deem ourselves fortunate in being able to announce that the same department will in future remain under his supervision.

THE WHITNEY CASE.

" We, the Academy of Medicine, after a full examination of the reports of the case, and the post mortem examination, do

consider that the death of Mr. Whitney was in nowise the consequence of improper treatment, but was the unavoidable result of *a complication of disorders.*"

(*Proc. Acad. Med., N. Y.*)

It is much to be regretted that the Academy of Medicine, in delivering their opinion in reference to the above case, did not think proper to enter more into detail and state the grounds of that opinion. We once knew an indifferently-educated member of our profession, when interrogated rather closely as to the nature of a disease, take refuge in the same vague expression, and say his patient had "a complication of disorders."

The simplest form of disease seems often obscure enough, but when told it results from a complication of disorders, none but active and enquiring minds (and such are not those of the majority) will choose to trouble themselves with what is mystical and unintelligible.

When we consider how excited the public have been in connection with this case, we would expect the Academy to feel a responsibility rested on them to decide less indeterminately the matter in question.

As their "resolution" leaves it, it not only does not award a full measure of justice, but gives no satisfaction whatever to the medical men more particularly concerned or to the public. The omission, however, has been supplied elsewhere. Professor Bennett, of Edinburgh, and the celebrated Rokitansky, of Vienna, have not hesitated to state their views. We publish Professor Bennett's letter, and refer our readers to the columns of the *American Medical Monthly*, for September, where they will find Rokitansky's communication.

We have hitherto abstained from all expression of opinion as to the relations that have arisen to the parties so unfortunately identified with the case.

We do not impute to any, improper motives in introducing to the notice of the public a supposed disastrous result of proceedings, conceived and conducted, as we believe, in accordance with science. But we do deplore what must appear to many a want of professional decorum and a seeming disregard of another's feelings. Occurrences like these tend to lower the pro-

fession in public estimation, and to lessen confidence amongst those who, from community of pursuits, of sentiments, and, to some extent, of position, should be linked in sympathy together. It is a mistake also to suppose that he who disparages, will rise in proportion as he sinks another's reputation—quite the reverse. He who thus lowers his profession, equally with the rest, suffers in public esteem, participates in the degradation he has inflicted on another, and earns the distrust of his fellows, who well know that inferior minds are sometimes quick-sighted enough to detect errors, though perhaps unable to correct them.

PROFESSOR BENNETT'S LETTER.

EDINBURGH, *May* 18, 1859.

MY DEAR DOCTOR—I have hesitated for some time as to how I ought to reply to your letter; that is, whether it would be better to enter into a lengthy criticism of Mr. Whitney's case, or simply answer the two queries you have put me. After carefully studying the case itself, I find so much to comment on in the various branches of diagnosis, pathology, treatment and ethics, that I feel constrained to throw my notes aside, and give up the idea of entering into the matter fully, as it would oblige me to write a treatise rather than a letter.

You request my opinion: As to the tubercular character of the pulmonary abscess; 2. As to whether such effect as Dr. Beales intimates could have been produced by the injection of nitrate of silver, which was employed.

1st. *As to the tubercular character of the pulmonary abscess.* —The description given by Dr. Green of the physical signs on the 25th October, 1858, is remarkably clear (see *Am. Monthly*, p. 104), and can leave no doubt as to the existence of condensation of the left lung at the apex, with softening of the tissue. When Dr. Beales was called in, Dec. 14th, he does not seem to have made any physical examination of the chest. At all events, no account of any is given from that time up to the period of the patient's death (*Monthly*, p. 111 to p. 115). But he tells us afterwards, that he had previously made such examination (p. 117) towards the end of October; he gives no description of these signs, but only states his opinion, viz., that "he could not discover any tubercles in his lungs, and did not believe any existed." The report of the post mortem, however,

demonstrates that the physical examination of the lung made by Dr. Green was in every respect correct (*Monthly*, p. 116). "The whole of the upper part of this lobe (the left) was red, and solid—hepatized." "At the commencement of the bronchial ramifications there was an open cavity, about the size of a small black walnut, of a reddish-brown color, and irregular villous surface, as though a slough had separated." This answers thoroughly for the flat sound, detected two months previously, over the upper portion of the left lung, and the humid rale audible below the left clavicle, on inspiration and expiration."

As to the nature of the disease, Dr. Beales conceives it to have been acute and recent pneumonia (p. 118). I cannot think so, when I consider the accurate account of physical signs given two months previously, then indicating the condensation and softening which were subsequently found. It must have been chronic pneumonia passing into gangrene, or a limited tubercular abscess, accompanied by chronic pneumonia of the apex. The descriptions given of the lesions do not enable me to say which of these it was. In fact, I consider it a matter of little importance, because a chronic exudation of the apex so readily passes into tubercle, and an old tubercular abscess is so commonly accompanied by chronic pneumonia, that, in truth, it often becomes difficult, if not impossible, to say where tubercle ends and pneumonia begins. It is enough that a chronic *exudation* was there, and that, I consider, Dr. Green fully indicated by his physical signs six or seven weeks before Dr. Beales was called in.

2d. *As to whether the treatment caused the disease.*—Dr. Beales informs that Dr. Mott told the family, after the post mortem examination, that they had not seen any disease that might not have been produced within a week (*Monthly*, p. 118). According to this idea, it could not have been the injection into the trachea which caused the pulmonary disease, as that operation was performed on the 6th of December, without causing any irritation, and he died on the 21st. Besides, the pulmonary lesion existed on the 25th October, as proved by physical signs. The injection, therefore, could not have caused that lesion. Is it not more probable that, a chronic exudition having existed at the apex, and a cavity formed, this latter perforated the pleura, causing the pleural exudation, followed by the emphysema of the cellular tissue? At what moment did this perforation take place? We are told that Mr. Whitney visited Dr. Green on the 14th of December, after breakfast (the time is not stated); the doctor passed an instrument into his throat,

and finding some obstruction, he pushed the instrument with some force; he (Mr. W.) felt something give way, immediately experienced *severe* pain about the top of the windpipe, and told the doctor he had "hurt him;" he returned home, informed the family of what had occurred, and was seen by Dr. Beales at 1 P. M. (p. 112). Dr. Green's account of what happened on the 14th is different. According to him (*Monthly*, p. 106), when the sponge reached the glottic opening, the patient partially closed the throat, so that the instrument did not enter the windpipe at all. It was at once removed, no more force having been used than that which is constantly employed every day in operations on the air-passages. The patient, after talking awhile with Dr. Foy and myself, and remarking that "the operation hurt him more," or that "he felt it more than usual," he left, with the arrangement that he should return the next day and have the tube employed. The patient's account to Dr. Beales is, that at the moment the probang was arrested at the glottis, he felt something give way, and experienced *severe* pain about the top of the windpipe (p. 112). But is this consistent with the fact that he talked for awhile with Drs. Foy and Green, and went home, intending to come next day, etc.? Again, was the pain, if felt *at the top* of the windpipe, symptomatic of perforation of the pleura in the chest? It appears to me difficult to answer these questions, more especially when we read the account of the alarming condition of Mr. W. at 1 o'clock, when first seen by Dr. Beales (*Monthly*, p. 111). I am, therefore, inclined to ask, What occurred in the interval between the patient's leaving Dr. Green and his seeing Dr. Beales? This may have been an interval of three or four hours, and of this most important period I can find no account whatever. It is true, Mr. Whitney seems to have had the impression that his severe symptoms commenced when the sponge was arrested, but this is negatived by the evidence of Drs. Green and Foy, who saw no evidence of severe pain, even in the throat. When, then, did the pulmonary and pleural perforation take place, which induced the emphysema and subsequent symptoms? With the facts at present before me, I cannot answer this question, but it is clear to my mind that it may have occurred during the hours not accounted for; that it might have been altogether spontaneous, connected only with the progress of the chronic pulmonary lesion, and that it had no relation whatever to the operation performed by Dr. Green.

In addition to the lesion already referred to, it appeared, on dissection, that there was an abscess behind the larynx, and stretching towards the left of the pharynx, the size of a hen's

egg, with an opening at its upper and posterior part, into the pharynx, large enough to admit the end of the forefinger. This abscess was not discovered before death, by any of his attendants, medical or surgical. Dr. Mott, a great authority in surgery, asserts that this was an acute abscess. Dr. Beales distinctly states (*Monthly*, p. 119), that in his opinion it was caused on the 14th December, by the accidental laceration of the pharynx by the probang; and his account of the symptoms, as he observed them at 1 P. M. on that day, supports the supposition, especially the intense pain in the region of the larynx, shooting through to the cervical vertebræ, and down the course of the trachea to the chest; he kept grasping the larynx, etc., (p. 111). Now, as the larynx was shown subsequently to be healthy, it is very probable that these symptoms were connected with the pharyngeal abscess. But how? Is such pain consistent with the first commencement of an abscess, or did it accompany the rupture of an abscess previously formed? By what signs was it pronounced to be acute? Might it not have existed before the operation of the 14th? Might it not have come on subsequently? On all these points I will not venture to speak. But having now used the probang in many hundred cases, and under all circumstances, I am at a loss to understand how its being arrested at the glottis would either lacerate the pharynx, so as to give rise to an abscess, or cause the bursting of an abscess which had already formed—"downward, behind and below the thyroid cartilage." I cannot but think that the application of the sponge had no more to do with this abscess than it had with the exudation into the apex of the left lung.

Yours, very truly and sincerely,

J. HUGHES BENNETT.

Rush Medical College.—Prof. Allen.—If the balance of the new appointments in Rush Medical College are as judicious as that of Prof. Allen to the Chair of Theory and Practice, the School will offer attractions of a very high order; and large classes will be likely to convene annually under the droppings of an institution which adopts the celebrated Rush as its patron Saint. Prof. Allen was identified with the organization of the Medical Department of the University of Michigan, and for four years continued his labors in that institution. As a scientific lecturer, he is, in our judgment, unsurpassed; at least, it has never been our fortune to listen to his superior. His lectures are always strong, clear, and convincing. His style is terse and axiomic. Conceiving in his own mind a clear and definite idea of the subject under consideration, separating truth from error, and reducing facts to general philosophy, he never fails to present truth with a clear and bold outline, and in a highly assimilative form. His acquisition is fortunate for the Rush Medical College; and while we regret that Dr. Allen leaves Michigan, we can but commend the sagacity which secures his services, and express our sincerest wishes for his personal welfare.—G., *Peninsular and Independent Medical Journal.*

THE CHICAGO

MEDICAL JOURNAL.

VOL. II. OCTOBER, 1859. No. 10.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

PLACENTAL PRESENTATION.

BY WM. H. BALTZELL, M.D., OF CHICAGO.

Very early in the morning of Monday, July 5th, 1858, I was summoned to attend upon Mrs. M——, in labor with her fifth child. Her husband, who was the messenger, informed me on our way to the house, that his wife on the Friday night previous had been taken with the first symptoms of labor, indicated by occasional fugitive pains, which were accompanied with slight discharges of blood from the vagina; that the pains had gradually increased in frequency and severity, and that the hemorrhage had become profuse and alarming. He also informed me that he had secured the services of a midwife, who, among other absurdities, had told him that "there was no child," that "the bleeding proceeded from a diseased growth in the womb," etc. Upon arriving at the house, I found the woman in a condition such as to excite my most serious apprehensions; her features were pinched, contracted, and perfectly bloodless; her whole body was bathed in a clammy sweat; her voice was scarcely above a whisper, and upon the slightest attempt at exertion, a condition approaching syncope supervened.

I immediately made an examination, and found the os uteri

yielding and dilatable, with, as I had anticipated, the placenta presenting; the waters had been discharged about five hours before, without however diminishing the flow of blood. It was a case of central placental presentation, and upon introducing my hand and passing the finger between it and the uterus, I found that it was detached completely upon the right side of the cervix, but adherent upon the left; the size of the seat of its attachment being, as far as I could judge, rather more than one-third of its uterine superficies.

Impressed with the necessity of prompt interference, if I would save the life of the mother, who indeed already had the appearance of a person moribund, and conceiving the child's death more than probable, and at all events its state secondary to the mother's safety, I separated the remaining attachments of the placenta, and withdrawing my hand was gratified to observe the almost immediate cessation of the hemorrhage.

A few minutes after I had detached the placenta, a pain occurred, discharging it into the vagina; after removing it from this situation, I could readily detect the head of the child presenting in the second position of the vertex. I then administered ergot, more with a view to its effects in insuring the contraction of the uterus after it might be emptied of its contents, than with a desire of its specific action upon that organ in the expulsion of the child, for, notwithstanding the alarming debility of the woman, the uterine contractions had been moderately powerful all along. There was no more hemorrhage of any moment, and a few pains completed the birth of the head. I however delayed somewhat the delivery of the body, for fear of the effect of too rapidly emptying the uterine cavity in the excessive prostrate condition of my patient. The child, as I had expected, was dead; it was well formed, and considerably above the average size.

The uterus contracted very well, and nothing untoward occurred. The woman was enjoined against making any exertion whatever, was placed upon a nutritious diet, and allowed a moderate quantity of stimulants; and though for a long time feeble and anemic from her great loss of blood, yet in about

three months she had completely regained her usual health and robust appearance.

With regard to the amount of blood lost, I can, of course, form only a proximate estimate. The apartment in which the woman was confined had very much the appearance of a butcher's shambles; she was lying in a large pool of coagulated blood, which had also soaked through two mattresses and half filled a chamber vessel which had been placed to receive it, besides, in a corner of the room there was a large and confused mass of sheets, towels, etc., some merely stained, others completely saturated with blood. I believe that I do not exaggerate when I place the quantity lost altogether, from Friday night until the delivery of the child, at considerably upwards of sixty ounces.

It is very much to be regretted that in cases of placenta prævia, confessedly one of the most dangerous and fatal complications that can occur in labor, there should be so many various and conflicting opinions among medical men as to the proper method of procedure. This is due, in some measure, to the obscurity involving the exact relations existing between the placental and the maternal circulation; and still more from a natural tendency to generalize individual experience, and inaugurate theories from data, obviously, in many instances, insufficient. Hence, it may not be uninteresting cursorily to examine some of the various methods advised by different obstetrical writers, with a view of discovering, if possible, which mode is most clearly based upon received physiological principles, and which, in its application, is best adapted to secure the safety of the mother and child, or if they be incompatible, the safety of the mother.

First, as to the operation of perforating the placental mass, either with the fingers or a pointed instrument, and so introducing the hand through the opening to perform version by the feet. Besides the difficulty of rending the tissue in question, Dr. Meigs, in his excellent work, has clearly and succinctly exposed the fallacy and *uselessness* of this proceeding. It renders the child liable to death from the rupture of the blood vessels of the placenta, and the consequent hemorrhage; it is apt to retard the delivery of the head by its being obliged to

pass through that mass; and it may occasion the very difficulty, to avoid which its advocates recommended the operation, viz., the detachment of the placenta in the process of delivering. There are other objections unnecessary to specify, as, notwithstanding its approval by many writers, and, I believe, the teachings of some of the Philadelphia schools, the practice has nearly gone out of vogue; it merely resolves itself into turning with the superaddition of unnecessary difficulties. Next, as to the expedient of turning, strenuously recommended and established as an obstetrical maxim by almost all the writers and teachers of the present time, and most generally practised by physicians at this day. We are told that we must carefully introduce the hand, if possible, at the point at which the placenta is detached, and cautiously passing it between the walls of the uterus and the membranes, rupture them high up, and seizing the feet of the child, perform the version.

Notwithstanding the unanimity of standard authorities in obstetrical science upon this topic, and notwithstanding its recommendation upon what certainly seem to be correct principles, viz., the emptying of the womb, so as to permit the condensation of its substance, and the obliteration of the vessels furnishing the material for the hemorrhage,—still, the indiscriminate and exclusive employment of this measure, as a rule of practice, when artificial assistance is indispensable, can be shown to be attended with a fearful maternal mortality greatly dependant upon the operation itself, and in very many cases avoidable. It will be understood that in the use of the terms "indiscriminate" and "exclusive," no reference is had to the injudicious or uncalled for interference of ignorant or inexperienced practitioners, for to do this would prevent the elucidation of a correct principle, but deductions have been made from the statistical tables of physicians of enlarged experience, admitted judgment, who have made obstetrics their special study. As has been ably shown by Dr. Simpson, the limited experience of any one or a few persons, in the investigation of the worth of an operation, is an uncertain guide in instructing us as to its general and determinate value; reliable conclusions can only be obtained by the critical examination *in the mass* of the results in a large

number of cases. When this test was applied to the practice of turning in placenta prævia, and the immense ratio of mortality attendant upon it was shown, to a certain extent, the medical world was taken by surprise.

The statistical information was mainly procured from the reports of lying-in hospitals under the charge of accomplished accoucheurs, where the danger could not be supposed to be increased by the accidents of ignorance, prejudice or officiousness on the part of the medical attendant.

Out of 421 cases collated by Simpson, "in which the child was removed by turning, the result was fatal to the mother in 144 cases; or, in other words, the mothers were lost in the proportion of more than 1 in 3 (1 in 2.9). Upon the continent of Europe, the Cæsarian operation, reputed the severest in midwifery, has been fatal, according to Dr. Churchill, in 154 out of 371 cases, or 1 in 2.4" (Simp., 1st series. p. 718).

This exhibit, the correctness of which cannot be disputed, clearly shows the frightful fatality attendant upon turning as a *rule* of practice, in the accident of labor under consideration; and it certainly merits reflection before we reject a measure *which can be proved* greatly to supersede the necessity of an operation, the danger of which differs from that of the Cæsarian section by but .4, and is more than twice as great as in lithotomy. And is it surprising that the proportion of deaths should be so heavy?

Dr. Lee has characterized turning under the most favorable auspices as a most painful and dangerous proceeding; and it is easy to imagine how the peril is increased when the recuperative powers of the system are broken down by vast loss of blood, and the woman is terror-stricken at her rapidly failing strength, and unnerved and agitated by the alarm of her attendants. These considerations, if they be correct, conclusively demonstrate the great risk involved in the indiscriminate resort to this measure, even in cases where active assistance is imperatively demanded; and we are brought to the investigation of the plans, by means of which it is claimed that the danger, to a great extent, is diminished. As is of course generally known, the advice of Dr. Simpson consists in the complete detachment of

the placenta previous to the delivery of the child. He was induced to favor and advise this course from a consideration of exceeding loss of life in turning, and from the satisfactory termination in several cases that came to his knowledge, in which spontaneous expulsion of the placenta was followed by cessation of hemorrhage. Having adopted the expedient of removing it, in some desperate cases that happened in his own practice, with a like result, he was led into an inquiry as to the value of the remedy as compared with turning, deriving his information from statistical reports. Of 141 cases, in which the placenta was delivered previous to the child, there were 10 maternal deaths, or 1 in 14, and a number of these could reasonably be attributed to other causes than a loss of blood. This striking difference between the two modes of relief conclusively show the force and benefit of his discovery as affecting the safety of the mother in comparison with turning.

It is not the intention of this paper to enter into the particulars of Dr. Simpson's theory; this can be done profitably by any one by perusing his elegant essay. But the *fact* seems incontrovertible, that the complete separation of the placenta in unavoidable hemorrhage from the presentation of that body, is an efficient, comparatively safe, and generally successful means of restraining the flooding. It has been seen that in my case the detachment was almost immediately followed by a stoppage of the flow, and I believe it justifiable and advisable in all instances of great exhaustion and danger from the continuance of the bleeding. Whilst, however, adopting the practice of Dr. Simpson, it is not, I think, essential for us to receive, as correct and conclusive, *all* the principles laid down by him as explaining its propriety and success.

In this connection it may be stated, that the effect upon the child is by no means so necessarily fatal as has been asserted by the opponents of the practice, which is readily susceptible of proof. Out of the 141 cases of premature expulsion of the placenta, there are 106 given in which the result as affecting the child had been noted; of these, 73 were born dead and 33 living, or, 31 per cent. were saved and 69 per cent. were lost (Simp., 1st series, p. 621).

Out of 70 cases reported by the two Ramsbothams (appendix), a similar account was kept in 40, and the number of the children saved was 8, or only 20 per cent., 80 per cent. having been lost.

As having some bearing upon this subject, it would be well to recollect that in pelvic presentations generally, under ordinary circumstances, the mortality to the child is about 1 in every 5 (Meigs, p. 398). But it is not pretended that placental detachment is an operation for the benefit of the fœtus. As to the causes of the cessation of the hemorrhage, it can, I think, be in a great measure explained, without adopting the opinion of Dr. Simpson concerning the entrance of the mother's blood into the substance of the placenta, and its flowing into the uterine cavity from the open vessels of that body. It is a mooted question whether the maternal blood enters any portion of the placenta at all; many writers, as Meigs, Velpeau, Ramsbotham, etc., taking the opposite view; and even the great majority of those who suppose that it does, agree in asserting that in unavoidable hemorrhage, the blood is lost directly from the uterus. If, as Carpenter affirms, the functions of the placenta—that is, the æration, and, perhaps, other changes in the fœtal blood—are performed in the substance of that viscus itself, at the junction of the so-called maternal and fœtal portions, and the villous expansions of the umbilical vessels are situated about that locality, it must be a positive condition, as necessary for the interchange of elements and the life and development of the child, that in all cases the maternal blood should so circulate.

There can be no more exception to this rule conditional with life to the child, than there can be exceptional instances of oxygenation of the blood without the necessity of air entering the lungs. In other words, if it be admitted that the expanded extremities of the bloodvessels of the cord are the instruments for the performance of exosmosis and endosmosis, and if they be situated in the middle of the placenta, the mother's blood must enter the placenta, or there will be no nutrition afforded the child; and if, on the other hand, it can be indubitably proved, not in one but in many cases, that the bloodvessels of the mother have carried that fluid no further than the inner

surface of the womb, and that nevertheless the fœtus developed, grew and lived, it is *more* than presumptive evidence against the placento-maternal circulation. For instances of this kind, reference can be made to Velpeau, p. 206; Meigs, pp. 207 and 208; a very interesting case reported by Dr. Henry Madge, which forcibly illustrates this view (Braith., part 33, p. 259).

Independently of this question, the spongy structure of the placenta itself is unfavorable for the rapid transmission of blood, and it is lost in large gushes in placenta prævia. Further, in a case of inversio uteri, Dr. Merriman *saw* the blood issuing from the surface of the womb (Braith., part 36, p. 217). Finally, it is *unnecessary*, in explaining the cessation of hemorrhage, to adopt that portion of Dr. Simpson's theory referring to its immediate source.

In consulting the works of nearly every author upon this subject, one is struck with the unanimity with which they advise expedients, all proposed with regard to a mechanical effect alone; overlooking, in a great measure, the fact, that the uterus, although invested with special and peculiar functions, is as much under the control of and subject to the general physiological laws of the system as any other organ of the body. Dr. Simpson has adverted to this subject, and shown the inconsistency of the omission; and it is his reflections upon this point that seem worthy of adoption, as satisfactorily solving the problem in dispute, when taken in connection with, though often sufficient alone and independent of, the mechanical effect of the pressure of the child and the contraction of the uterine fibre. There is, undoubtedly, an "attractive power" resident in the placenta when affixed to the uterus, which determines an increased quantity of maternal blood to that organ, for the necessary purposes of the nutrition of the fœtus and the essential changes in its blood. This stimulus continues, probably in a proportionate degree, so long as any portion of the placenta is attached to the womb; but when the "normal irritation" of its adherence ceases, the extra supply of blood, sent there for a special purpose, is diverted to the general circulation, and under these circumstances, slight mechanical action is generally sufficient to control the flow. In the same manner, under the stimulus

of the presence of food, the blood is directed in large quantities to the coats of the stomach, its capillaries are distended and receive an unusual supply, but after the process of digestion is completed, the surplus of blood requisite for this functional office falls again under the organic laws of the circulation of the general system.

Examples of this kind might be multiplied, but however this physiological principle may have been overlooked in its relation to the subject under discussion, its bearing upon it can hardly be denied. So long, therefore, as any portion of the placenta adheres to the womb, there is an increased determination of blood to that point; and as the vascular sinuses of the uterus in that position communicate with each other, and are supplied with blood from the same maternal vessels, a large quantity must necessarily escape from the patulous orifices left by its partial separation.

If these premises be correct, therefore, without adopting the circuitous placento-maternal circulation believed by Dr. Simpson, we may, in a great measure, explain the *fact* of there being a greater hemorrhage from partial than complete detachment of the placenta; and why the latter, as a remedial operation, has a great tendency to restrain the flooding, and is *most generally* efficient to do so. The practice of the tampon in rigid os uteri, and the expedient of drawing off the liquor amnii, have not been dwelt upon, because they are tentative measures, and whilst as such proper and advisable in many cases, still are very frequently only preliminary to the choice between turning and detachment, though it may be remarked that the evacuation of the waters adds greatly to the danger and difficulty of the former method.

Let us now briefly examine "The New Physiology of Placenta Prævia," by Dr. Robert Barnes and Dr. Cohen, of Hamburgh. They advocate the separation of the placenta from the cervix or dilating portion of the uterus only, or, in their language, "the conversion of a central into a lateral placenta." There seem to be several inconsistencies in and objections to this practice. It is believed by them that the hemorrhage proceeds directly from the surface of the womb, and not from the placenta;

and quoting from Sir Charles Bell, relative to the peculiar arrangement of the muscular fibres of the uterus, it is stated by him in the very article selected that it is the dilating portion or cervix that supplies the hemorrhage, the surface of which they propose further to increase, leaving the placenta attached only to the contracting part of the womb. That the flow proceeds from the dilating cervix ("which relaxation is something quite different from a mere yielding to pressure, and is obviously a vital phenomenon that marks a peculiarity in the actions of this part,"—Carp., p. 979), is proved by the fact that the hemorrhage is greater during a pain; whilst the body of the womb contracts, the cervix yields and dilates, of course allowing the blood to pass more freely and in larger quantities. From the very structure of the placenta itself, it is very probable that in all cases of placental presentation it is quickly detached from the dilating walls. The maternal face is divided into a number of lobes or placentulæ, with deep sulci or furrows between them. When these are applied to the concave surface of the womb, the corresponding side of the placenta is necessarily convex, and, of course, its superficies is greater than if it were a plane. The furrows become more and more narrow, according to the degree of contraction of the womb, until at length becoming obliterated, further condensation of the muscular tissue throws off the placenta. By placing one of these bodies into a concave glass, as one of the shades for ornamental clocks, a plain view can be had of its uterine face, and it will be seen that the sulci are arranged to admit of considerable contraction of the womb, without impairing the attachment of the placenta. We are all familiar with breech cases, in which, after the waters had passed, the body of the child delivered, and the womb contracted to half its size, the pulsation of the cord continued, indicating the persisting connection between the womb and placenta.

On the other hand, in prævial cases, how slight the dilatation necessary to cause alarming flooding, many cases being reported in which it occurred when the os could hardly be felt to be dilated at all, showing the attachment of the placenta to be such as readily to admit of its being broken by this relaxation, and the degree required to be very moderate.

If this be so, as the labor advances it would seem unavoidable for the separation to occur in the cervix. Besides, the practice of this plan of Dr. Barnes has not been sufficiently tested to clearly recommend its utility, and certainly *seems* founded upon incorrect principles.

ARTICLE II.

EXPECTORATION OF FIBRINOUS CONCRETIONS, OR "FALSE MEMBRANE," FROM THE BRONCHIÆ OF AN ADULT.

BY L. H. ANGELL, M.D., OF AURORA, ILL.

The patient, a man not quite forty years of age, has usually possessed good health, with the exception of slight attacks of acute bronchitis during the latter part of the winter or early spring months. These have been rarely of sufficient severity to confine him to the house, and have generally required but a mild expectorant or anodyne to arrest them at once. However, during the two past winters the attacks have been more persistent, and inclined to take on chronic features, though the general health was not much affected. During the latter part of February last, there was considerable cough, which was allayed as usual by an anodyne expectorant.

About the first of March, during a paroxysm of coughing, a fibrinous concretion was expectorated, which evidently was formed in the ramifications of the bronchiæ. It was in the form of a perfect cast of a bronchial tube, two and a half inches in length, perhaps an eighth of an inch in the diameter of the largest end, and consisted of a main stem and two branches of smaller size. The specimen was perfectly hollow throughout, of a white color, and opaque. It was evidently fibrin, quite well organized, and so elastic that it could be stretched one-half its length without breaking. Masses exactly resembling this were coughed up every one or two weeks during the spring months, occasioning but little inconvenience aside from an increase of cough for a day or two before the expectoration, which was followed by an interval of perfect quiet. Some specimens

were more firmly organized than others, and contained blood-vessels, which could be traced distinctly almost with the naked eye. The point whence these masses were supposed to be expelled could be distinctly felt by the patient, and appeared to be just within the right nipple or near the centre of the right lung. There was dulness evident here upon percussion over a circumscribed space, and upon auscultation, coarse crepitation or bronchial rales were mingled with the respiratory murmur.

Vesication over this region, with full doses of expectorants and anodynes, were followed with marked benefit. The affection having apparently yielded, these measures were suspended. Soon, however, the cough and irritation increased, accompanied with the same expectorations. There was greater disturbance of the respiration at this time; considerable pain and severe cough. Apparently the same portion of the lung was the seat of the disease, and the same tubes were almost daily reproducing and expelling their fibrinous casts of uniform size and appearance. Only once was there any appearance of hemorrhage, and then but very slight.

This was about the first of June. Blisters were again resorted to, and other counter-irritations and anodynes, etc., were given, together with full doses of chlorate of potassa. The affection again yielded very readily; and since the 26th of June, no more of the expectoration has occurred. He has been free of any bronchial irritation during the balance of the summer, and his health has been good. Recent cool weather has, however, admonished him that a point exists where a little exposure might renew his former attacks.

But once previously have I ever witnessed expectoration of fibrinous membrane analogous to this. This occurred in a patient two days subsequently to a violent attack of hæmoptysis. She spat up a large mass of fibrin of the form of the bronchial tubes, perfectly hollow, but less opaque than the former, being quite or almost translucent. She was immediately greatly relieved. This was evidently a case of tuberculosis; and the patient removing east, died about a year afterwards.

Watson describes this as a rare affection, of which he had never seen but two cases. He regards it as not a serious

disease, never having known a fatal case. He makes a distinction, however, between cases which occur as a result of hemorrhage, the fibrin being simply deposited within the tube, and those which are caused by a peculiar inflammation of the bronchial mucous membrane.

Wood also, in his practice, alludes to this affection, which he supposes is often the cause of a fatal termination in the acute bronchitis of children, the bronchiæ being perfectly filled with the false membrane.

I send you some specimens which were expectorated by the first-mentioned patient, which are remarkable for their uniform size and appearance, and for being expectorated, in almost every instance, entire.

[Expectoration of false membrane from the bronchi is, perhaps, not so uncommon as is generally supposed. Hastings notices it in his work on Inflammation of Mucous Membrane. Marshall Hall gives a plate representing the membrane as expectorated during an attack of bronchitis. This expectorated false membrane would appear to be the result of two very different pathological conditions. It may be a symptom of lobular pneumonia; and it may be associated with bronchitis, or be a sequela of it. When a symptom of pneumonia, the cylinders are full, not hollow, as in the bronchitic form. When false membrane occurs during bronchitis, it is not during the active stage of inflammation; this generally has subsided, and the disease is become chronic, retaining no symptom except this to mark its existence.

Pseudo-membranous bronchitis may also be an acute disease, the false membrane being expectorated during the existence of active inflammation. A case of this kind, and the only such without complication on record, is related by M. Thore, jun. (*Gazette Medicale*, 1849). The patient, aged 9 years, was seized, while in the midst of health, with symptoms of acute catarrh, and the day following commenced throwing off false membranes. The affection continued but twelve days. The membranous exudation was expectorated with an abundant frothy and viscid mucus, resembling a solution of gum.

Dr. Casper (*Wissenschaftliche der Annalen Gesammten Heilkunde*, 1836) relates a case of a girl, 12 years old, who was seized with bronchitis. During the accompanying fever she did not expel any false membrane; but when every other symptom of bronchitis had departed—when she seemed in perfect health, appetite and sleep good, she coughed up every night and morning membranes accurately representing the bronchi.

In the *Med. Gazette*, 1838, there is a case of croup presenting, when contrasted with this case, at least in one particular, considerable analogy. In neither could any fever be detected. The case of croup, however, terminated fatally by occlusion of the glottis.

In the year 1844, Dr. Reid read a paper before the Royal Med. and Chir. Society detailing two cases of pseudo-membranous bronchitis. In both cases the tubular expectoration was accompanied by hemorrhage from the chest. In one, a lady, aged 28, great emaciation was induced. After having suffered severely from suffocation, she coughed up, with froth and mucus tinged with blood, several aborescent membranous substances, resembling casts of the minutest bronchial tubes. She recovered from this, and afterwards died of a complaint unconnected with the chest. The second case occurred in a healthy man in the prime of life. This was complicated with severe hœmoptysis, for which he was bled. He ultimately recovered.

We occasionally see in phthisis tubular expectoration; and often on the buccal mucous membrane of such patients, pseudo-membranous patches may be observed. In cases of pseudo-membranous bronchitis, general bleeding, mercury and iodine have been used without any decided benefit. The prognosis may generally be considered favorable when the formation of false membrane is confined solely to the ramification of the bronchus of but one lung, when there is no complication, and when the accompanying fever is mild.]

[We propose, in a series of papers, to give a history of the rise and progress of Diphtheria, as it has appeared within the last forty years,—to carefully collect the opinions of those whose opportunities of observing it have been most extensive, both in Great Britain and France, and to avail ourselves of every source of information most recently derived from American journals. We will then enquire how far it is dependent on or even fostered by cosmic and meteorological influences; examine the facts supposed to connect its epidemics with individual and hygienic circumstances in the relation of cause and effect; and thus having brought to bear on the matter no inconsiderable amount of research, we will endeavor to eliminate some general principles to guide us in our views of the disease, and direct us to a suitable and efficient treatment.

The proposed investigation is not without its difficulties; but we possess abundant materials that cannot fail to contribute to the elucidation of the subject, though it should not altogether succeed in dispelling the darkness that obscures it. We purpose, as far as practicable, to illustrate the important features of the disease, by the detail of cases, suitably selected, and obtained from the most reliable sources. When thus we shall have learned the results of the enquiries of others, we will contrast them with each other, see how far they agree, and ascertain whether discrepancies be real or only apparent, from want of agreement in the signification of terms, or from viewing phenomena in different lights, or under the modifying influence of combination.]

ARTICLE III.

DIPHTHERIA.

BY W. GODFREY DYAS, M.D., CHICAGO.

In the year 1821, a memoir was read to the Royal Academy of Medicine, Paris, by M. Bretonneau, in reference to an epidemic disease which had made its appearance in the neighborhood

of Tours. It was first observed in 1818, amongst some soldiers recently arrived from the Isle of Bourbon, but having been mistaken for scurvy, was unsuccessfully treated. From this date to the year 1826, other memoirs were presented to the Academy by M. Bretonneau, detailing the result of further investigation; and in the month of June of the same year, he published his celebrated work, entitled, "Des Inflammations Speciales du Tissu Muqueux, and en particulier de la Diphtherite ou Inflammation pelliculaire connue sous le nom de Croup, d' Angine Maligne, d' Angine Gangreneuse," etc.

In the meantime, observations embodying similar views were published in Great Britain, the enquiry having probably been suggested by Bretonneau's first memoir. But though among modern observers the claim to priority rests with him, yet we are not to infer the disease was unknown to the ancients. It would appear Hippocrates was not unacquainted with it, and one of the best descriptions of it has been given by Aretœus.

It has been termed diphtheria, or diphtherite, from the Greek *diphthera*, pellis, the formation of a pellicle or false membrane being invariably a symptom of the disease.

About one year before the publication of Bretonneau's work, Dr. Gregory, of London, made known the particulars of three cases of what he considered croup, wherein the disease having commenced in the fauces, passed downwards to the larynx and trachea, as far as the first division of the bronchial tube. The three cases were fatal. Two of them died from the blocking up of the larynx and trachea, with pseudo-membranous exudation, and one from exhaustion, as we are told, but the post-mortem examination seems not to have been a very searching one. At all events, the child was under the mercurial treatment, vigorously administered, and though no concretions were seen on opening the trachea, yet this was inflamed, and a purulent secretion covered its mucous membrane. These three cases occurred in the same family, and there was reason to suppose that the disease was communicated from one to another.

Thus, two important facts were brought to the notice of the profession,—one consisting in the contagious nature of the

malady, the other in the progress of its local manifestation from above downwards.

The mere title of Bretonneau's work will at once show that he confounded the disease in question with croup; but he not only asserted the identity of these two, he also looked on angina maligna, not as similar, but even as identical with what was usually described under these several names.

Diphtheria is not the only disease whose early history tells of ill-defined terms—relations assumed from too limited a sphere of observation, and deductions in accordance—not true to all the cases they were meant to refer to. The same have been an episode in the history of every disease. The literature of our profession teaches how measles, scarlatina and small pox were confounded together; scarlatina described under the head of purpura; and roseola represented as a variety of rubeola.

We now proceed to give Bretonneau's description and treatment, and we will then enquire to what extent his views, under the aspects we have more recently seen the disease, correspond with the experience of later observers.

He describes it as usually commencing in one tonsil, seldom in both; fever slight; then white spots are seen on the surface of the affected tonsil; the cervical glands enlarge; deglutition not very difficult; redness surrounds the concretion, and it spreads rapidly to the velum palati, uvula, the other tonsil and the pharynx. The swelling of the lymphatics either subsides or remains stationary. After some hours or even days, a ringing cough, dry or accompanied by a frothy expectoration, announces the extension of disease to the respiratory organs. The following were the anatomical characters: Irregularly-shaped patches of redness, dotted and without swelling, coated with a concrete exudation; the most florid of these patches owing their color to a fine vascular injection. One or more long, narrow, red streaks were seen extending to the pharynx or descending to the trachea. A stripe of concrete matter on the centre of each of these streaks, and in the substance of these incipient concretions small semi-transparent bullæ are often seen. The edges of the pellicle were gradually confounded with the surrounding mucus, which, without being altered in its

appearance, was changed in its quality, being no longer viscid, but coagulated near the concretion. These bands or stripes having extended, became more dense and homogeneous, and finally terminated by forming a complete tube, united to the subjacent mucous membrane by little prolongations that dipped into the mucous follicles. If the concretion were detached, the redness of the mucous membrane increased, a false membrane was reproduced, and in proportion as the super-imposed laminæ added to its thickness, it became more and more adherent to the surface beneath. Twenty-two dissections were made to ascertain if the concretion was the same as that of croup, and whether the mucous membrane beneath retained an unbroken surface. The result induced Bretonneau to infer that the exudation was identical with that of croup, and that, with some slight and occasional erosion excepted, the subjacent tissues preserved their integrity.

"In comparing," he writes, "the morbid appearances found on dissection in 55 bodies, of every age, who in the course of two years fell victims to epidemic angina, there appeared but one instance wherein the false membrane was confined to the trachea, without any similar exudation on the tonsils or other part of the pharynx. In no case, even of the most malignant nature, was there anything like gangrene of the parts. Ecchymoses of small extent, and an occasional slight erosion of those surfaces where the disease had longest continued, were the gravest alterations of structure which were ever seen. In about six or seven cases—that is, in one case in nine—the concretion extended to the ultimate ramifications of the bronchial tubes.[1] In about a third of the whole number it reached the great divisions of the bronchia; in all the rest it terminated at various depths in the trachea, the mechanical obstruction of the respiration appearing constantly to be the immediate cause of death."

We are also told the concretions generally covered the pituitary membrane, but seldom extended to the external openings of the nostrils. In two cases the membrane lined the œsophagus, as far as the cardiac orifice of the stomach.

Bretonneau had no confidence in the curative powers of nature in this disease. He principally depended on the energetic

application of concentrated muriatic acid, which he cautions us not to apply too frequently; and in case of the extension of the complaint to the larynx and trachea, his chief reliance then was on calomel and mercurial frictions,—the former administered in doses of three grains every hour, and the latter employed every third hour to the neck, arms and chest. As a last resource, he performed tracheotomy, by which, previously to the publication of his book, he had succeeded in saving one life out of three, the number operated on by him up to June, 1826.

During epidemics of diphtherite, Bretonneau and Trousseau saw the disease not confined to the fauces and respiratory passages, but extending to the skin, which was covered with false membranes. Trousseau allows that Bretonneau's observations, in reference to the pharyngeal symptoms being occasionally accompanied by a similar lesion of the skin, had been anticipated by others, but maintains that it was Bretonneau who first suitably arranged facts in connection with this disease, and completely described its symptoms.

We give Bretonneau's description and treatment of disease at some length, as we are aware that many do not suppose the diphtheria recently prevalent in England and some parts of this country to be the same as his diphtherite; and they rest their conjecture on the fact, that the course and termination of the disease as lately seen are not identical with those described by him.

We cannot deny that the progress and mode of termination of the several epidemics of diphtheria have varied more or less in every visitation of the calamity. But in this there is nothing unlike what we observe in the history of other epidemic diseases: Cholera, scarlatina, influenza and typhus can furnish evidence to show that their several epidemics vary not only in the intensity of development, but in the order of sequence of their symptoms, in the absence of some from the group, and in the appearance of others. The influenza of 1848, in Paris, was not the same as in 1831–37. The cholera of 1849, in England and Ireland, was unlike that of 1832. It had lost much of its severity—the form was not so spasmodic; it was rather the collapsed kind, and neither vomiting nor diarrhœa was so

general. Nothing can be more variable than the progress and mode of termination of cases in the several epidemics of typhus: the morbid phenomena in one epidemic will be principally referrible to the brain and its membranes, in another to the respiratory organs, and in a third to those of digestion.

We will not now stop to discuss this question, but proceed to consider diphtheria both as a sporadic and epidemic disease, tracing it as observed at different periods, under different phases, and with varying severity, and show that though its essential characters were never wanting, yet incidental circumstances often associated themselves, with the effect of masking its main features. As seen in its sporadic form, diphtheria appeared much modified—this, from analogy, we should be led to expect. In such cases, it rarely extended to the air-passages, and generally terminated favorably; occasionally, however, it proved fatal by terminating in pneumonia, which, commencing insiduously, made progress without exhibiting any decided symptoms, and destroyed the patient when apparently reaching convalescence. A most interesting case illustrative of this has been related by Baudelocque, which we give at length:

"Victorine Soret, aged 13 years, strongly made, with a well-developed muscular system, working and sleeping for seven months in a damp work house, situated below the level of the street, in the quarter of La Greve, was seized early in Nov., 1834, with malaise, pain in the back and chilliness. These symptoms continued three days, when fever developed itself, accompanied with great difficulty of deglutition, swelling of the cervical glands, and nasal intonation of voice. A physician was called in, who applied thirty leeches to the angle of the jaws; at the same time, he prescribed emollient gargles, poultices and pediluvia. Two days afterwards he took blood from the arm. Under his treatment, there was no change for the better in the state of the throat; her strength was failing and her pulse becoming weak, and she fell into an adynamic state. It was now the fifteenth day of the disease, when she was taken to the Hopital des Enfans Malades. She presented the following symptoms: Nov. 26. Position, supine; face of a violet hue, with an expression of prostration and stupor; voice,

nasal; tumefaction of the sides of the neck; occasionally, a return of fluids by the nares, which, at the same time, are the seat of a yellowish serous discharge of a sickening odour. On examining the throat, both tonsils, the pharynx and the uvula were seen covered with a greyish white false membrane, resembling gangrene. The breath was fetid; spitting abundant and sanious; tongue dry and like a piece of parchment; the abdomen free from pain; the skin rather cold than warm; pulse, from feebleness, cannot be reckoned; no pain of the chest; the patient, whose intellect is clear, assures us she has no local pain. (Cauterization of the pharnyx and tonsils with solution of nitrate of silver, four times; gargle of decoction of bark and chloride of soda; julep with 6 grs. of sulph. quinia; lemonade with wine). 27th. The same local and general symptoms persist; throat cauterized with a still more concentrated solution of nitrate of silver. The discharge from the nares indicate the extension of pellicular inflammation to the nasal fossæ, to these powdered alum was applied by means of a souffloir. The rest of the treatment as on yesterday. 28th. Part of the exudation detached from the tonsils, but these remain swelled, presenting a brownish colour, and a rough, unequal surface; the difficulty of deglutition remains; no pain is complained of in the throat; the pulse can scarcely be felt; the same look of prostration and the same depression; two or three loose discharges from the bowels without pain. (Remedies as before, with the addition of blisters to the thighs). 29th. Some shreds of false membrane of a greenish yellow colour still adhere to the pharynx and left tonsil; the surrounding mucous membrane livid; vomiting took place during the visit; the vomited matter ejected partly by the mouth and partly by the nasal fossæ; a violent shivering in the afternoon of each of the last two days; to prevent a return, 12 grs. of sulph. quinia prescribed. 30th. The rigor returned in the evening; it has been of less continuance than on the preceding days; prostration increasing; the face is of a leaden hue; the tongue black, patient unable to sit erectly; skin cold; pulse thready, and but 64 pulsations in the minute; 20 inspirations, in the same space of time, can be counted. The blisters have scarcely

reddened the skin; the examination of the fauces induces vomiting; the matter vomited contains the *debris* of false membranes; some greyish points exist on the pharynx and velum palati; the left tonsil covered over with a membraniform and very extensive concretion. Two liquid motions without pain; slight numbness of the limbs; intellect clear; pupils natural; no headache. From the 1st to the 5th Dec. Sinking more and more visible; pulse thready, and varying from 64 to 72 pulsations, and only on the 5th a notable acceleration; constant moaning; tongue pale and cold; more false membranes in the fauces, but the parts they cover are of a livid hue; diarrhœa; slight cough; no pain of the chest whatever. (Sinapisms to the inferior extremities. Lemonade, with wine, and preparations of bark internally). Death took place on the 5th.

"*Post-mortem examination nineteen hours after death.*—No cadaveric rigidity; no abnormal tumefaction of the velum palati, tonsils or pharynx; their surface of a deep red, and covered, in some points, with simple mucus, which the pulp of the finger can remove; mucous membrane not destroyed in any point; neither ulceration nor slough; no gangrenous odour. The epiglottis and the circumference of the glottis present the same redness as the pharynx; mucous membrane of the larynx, trachea and œsophagus pale; that of the bronchia red, the redness of which increases as the termination of the air tubes is approached; the cervical and bronchial glands hypertrophied; the pleuræ not the seat of any pseudo-membranous exudation; no fluid in their cavities; the superior and middle lobes of right lung crepitating and rose-colored externally; inferior lobe altogether impermeable to air, heavy and compact; when cut in slices, these fall to the bottom of a vessel with water. The inferior left lobe presents the same alteration posteriorly. Nothing remarkable about the heart and pericardium. *Abdomen.*—The gastric mucous membrane in contact with a brownish liquid; capillary system exhibiting some patches with an arborescent arrangement, and nipple-like eminences around the pylorus; its consistence has undergone no alteration; some redness from space to space along the in-

testinal canal, without any diminution or increase of the normal consistence of its mucous membrane; no alteration of Peyer's or Brunner's glands, which are scarcely visible; the other abdominal viscera gorged with blood, and less consistent than in the normal state. The head not examined."

We subjoin to this case some remarks by Baudelocque:

"This girl was admitted into hospital on the fifteenth day of the disease. An energetic antiphlogistic treatment had been administered, without improving the local affection. The exudation after having lined the velum, tonsils and pharynx, invaded the nasal fossæ, but did not extend to the respiratory passages. Whilst under the antiphlogistic treatment, symptoms of grave import supervened—the tongue became dry, the pulse was scarcely felt, and the skin was cold; patient fell into complete adynamia. Whilst in hospital, caustics were employed, the local symptoms seemed to give way, without any influence on the general system. In vain did they try to raise the strength by the aid of tonics, all were unavailing. Nothing during life revealed the pneumonia seen on the dead body. Cough was trifling, apparently caused by the detachment of the false membranes; respiration was not accelerated; no thoracic pain; no rust-colored expectoration. We do not hesitate to refer the lesion of lung to that hypostatic pneumonia which so frequently occurs in typhus fever, and which is but an element of a general morbid state. The general symptoms that preceded the invasion of diphtheria—those manifested during its course, and which persisted after its disappearance, leave no doubt that in this disease there is something besides the local lesion."

We cannot avoid thinking that many of the cases of diphtheria we have lately read, terminating in exhaustion, have proved fatal by latent pneumonia. The form of accompanying fever so resembles the typhus with which we find latent pneumonia frequently associated, as at once to suggest the probability of such occasional termination.

Though we detail this case with the view of not omitting anything that may tend to throw light on a subject that much needs elucidation, still it must be observed that in consequence

of diphtheria, as a sporadic disease, not being very often met with, we must, in order to fully comprehend its nature, more fully study it in its epidemic form — that in which it presents itself most frequently, and affords the most favorable opportunities of our becoming acquainted with its characteristics.

During the years 1841, '42, '43 and '44, diphtheria prevailed as an epidemic in France, in the Department of the Saone and Loire, and La Nievere. The diphtheritic membrane was not confined to the mucous membrane, but extended to the cutaneous surface, yet in varying proportions. The pharyngeal form was the most frequent; next in order of frequency, the skin, the laryngo-tracheal and the buccal mucous membranes. These were instances of simple diphtheria confined to one situation. But in other cases, the pseudo-membranes formed simultaneously on many and distant points of the system; thus there were the pharyngo-cutaneous, the laryngo-cutaneous and the pharyngo-laryngeal diphtheria. In this epidemic the local seemed to precede the general symptoms: the face was much swollen; febrile reaction more or less intense; pulse in general very frequent, and almost always very hard and contracted; there was headache; the tongue was swollen and covered with a thick and yellowish coat; nausea and frequent vomiting; sometimes phlegmonous abscesses either in or around the conglobate glands. The disease reached its maximum of intensity in 36 to 48 hours. The tonsils became enormously enlarged, even becoming a mechanical obstacle to the passage of air or liquids. When the patients had been previously cachectic, the disease rapidly proceeded to a fatal termination, the pseudo-membranes having been brownish even from the commencement.

Most commonly, death from diphtheria took place from the seventh to the tenth day. When the disease was about to terminate favorably, the false membranes ceased to extend, became circumscribed by a red circle, assumed a swollen appearance, detached themselves in shreds accompanied by an oozing of blood, and were thrown off with a frothy fetid saliva. During this epidemic, the larynx and trachea were rarely affected by diphtheric inflammation. There were not many, therefore, affected with symptoms like croup; but as we have seen in

some sporadic cases, so in the epidemic form, both Daviot and Guersent tell of unfavorable terminations by broncho-pneumonia, generally double, stealing imperceptibly on when the patient was either convalescing or health nearly re-established. Daviot does not think pharyngeal diphtheria contagious—an opinion in which few will concur. He thought the objects which the physician in his treatment should keep in view, were the subduing of inflammation, the destruction of false membranes and the modifying the special morbid state of the mucous membrane. For the first, he recommends general bleeding, which he supposed particularly suitable for all beyond 10 years of age, where the disease is in its early stage and the general reaction violent. With this he advised local bleedings to be conjoined, to be repeated at short intervals. He restricts the use of vomits to very young subjects. He objects to purgatives, as augmenting the predisposition to intestinal irritation, and as being without any advantage. He also objects to blisters, as having the serious inconvenience of adding cutaneous to pharyngeal diphtherite; he however approves of rubefacients. Alum he thought useful in the early stage, but useless afterwards, when he preferred nitrate of silver to any other local application, even to muriatic acid. Calomel he looked on as useless in pharyngeal, but particularly serviceable in cutaneous diphtherite. He mentions the following important fact to show identity of nature in pellicular inflammation of mucous membrane and of the skin. During this epidemic he saw, under the influence of similar causes, diphtheria rage in several members of the same family, attacking in the one the pharynx, in another the skin, in another the respiratory passages, and in another all these at once or successively. How will those who maintain that croup is essentially a distinct disease meet this fact? Daviot's monograph is considered as one of the best on this subject. He lost two children by the epidemic. This circumstance is supposed to have ensured unusual care and exactness in his observations and statements, as his essay was written, most probably, from impressions, unfading as they were sad, which memory must have vividly recalled whilst recording symptoms so painfully associated with domestic affliction.

(TO BE CONTINUED).

SELECTIONS.

On the Procreation of Male or Female Children, at will. Presented by John E. Van Molle, A. M., of Brussels, to the Faculty of Oglethorpe College of Savannah, for admission to the grade of Doctor in Medicine.

(From the *Oglethorpe Medical and Surgical Journal.*)

In this essay, Dr. Molle gives us the results of some experiments instituted, in the first place, as he informs us, for the advancement of science, but which have become objects of speculation in the raising of horses and cattle. Men of science, we are told, having still further extended the enquiry, endeavour to apply this philosophical fancy to other flesh besides horse-flesh and that of cattle. The following are the facts which he assures us have been obtained:

1st. That the young obtained from a mare, cow or sheep, etc., when very young, was generally a male, when the male employed was of mature age, healthy and strong.

2nd. When the female is of mature age, strong, healthy and well fed, the young is more commonly female when the male employed is young, weak or exhausted by too often repeated copulation.

3rd. That the young obtained from the same when at mature age, strong, healthy and well fed, was in nearly equal proportion, when the male employed was in a similar condition.

4th. That the young brought forth, when the female is old, were generally males when the male employed is young and strong.

5th. That the young obtained from females, when in pride, being well fed and young, were generally females, when the male was not in pride, or when ill fed, or exhausted by frequent copulation, or too old.

6th. That the young obtained from the same, when ill fed and not in pride, were generally males, when the male was well fed, young, healthy, strong and in full heat.

7th. That if the female was exhausted by labor or forced exertion, the young would be generally male, should the male employed be kept in and well fed.

8th. That the young would be female, should the female be kept at rest and the male exhausted by labor or forced exertion.

9th. To conclude, that the offspring would more generally

be male or female, according to their respective physical and procreative abilities (age being taken into consideration).

From the preceding statements he derives the following deductions:

Man, being an animal, having physical and procreative faculties, analogous to those of the brutes, if a set of phenomena take place among these, the same must necessarily be produced in the human species, and if certain conditions of the physical body affect their offspring, the same physical conditions must affect the offspring in man.

Now, granting that the statements in regard to the brute creation be true, we deny that the principle involved can be extended to our species, modified as it is by civilization, and subject to so many and various influences. We therefore decline receiving these deductions, if they are based only on analogy. Is there nothing in civilization to modify the physical condition of man? Is Dr. Molle aware that some even go the length of supposing, the state of the *morale in coitu*, particularly that of the woman, has a determining influence on the organization of her offspring. Even if we do not maintain this position, to the full extent, still in the opinion of many, there is an air of probability about it sufficient to require that deductions practically ignoring and indirectly invalidating it, should be supported by an extensive collection of facts; yet when we come to examine the argument on this ground of evidence, we find but eight cases to sustain a principle, having for its whole support—a questionable analogy. Even the cases are incomplete and unsatisfactory. But Dr. Molle is not satisfied with merely establishing an analogy thus flattering between us and brutes—he favors us besides with some practical rules to guide us, when we shall have made up our minds whether we may choose to have male or female offspring. The thing is quite at our option. "We think," he proceeds to state, "we are warranted in recommending the following rules as the means to get either male or female children at will:"

To get a male child, the husband should take good substantial and somewhat stimulating food, moderate exercise, pass his time pleasantly in the gay society of women, read lascivious

novels, refrain from sexual pleasures for a time previous to the procreative connections with his wife. During the same time, the wife should live sparingly, particularly on vegetables, fatigue herself every day, take some anti-aphrodisiacs and pass her time in the society of dry old women. To have female children, the opposite should be observed, the woman should live in the abundance of all good things, in the ball room, etc., but should refrain (restrain?) her passions and preserve their full force for the desired time—the male or husband, on the contrary, should reduce his physical abilities by actual labor, and at the same time, reduce his procreative propensities by frequent copious copulations.

We now learn that these two important events in man's history—his *advent* to life and union in the married state, can be best regulated, by submitting all that concerns them to the precepts of science,—that we should pair as the "beasts that perish"—that if we prefer a son to a daughter, or a daughter to a son, nothing can be more easily accomplished. We have but to follow the rules given in this essay, and the thing is done, as if by the magic wand of the enchanter, forgetting that the first of all authorities says—"It is He that hath made us, and not we ourselves." We think this essay, on grounds both physical and moral, more suited to the state of Mormon society than ours. Utah is the place of all others, where this theory of development could be tested to advantage. The old sinners, who are elders there, with their numerous wives much younger than themselves, must, according to Dr. Van Molle's "speculation," be especially blessed with female progeny—male infants, of course, must rarely be seen—the conditions for their forthcoming can scarcely exist. Thus we see how things there must be exactly dove-tailed—mutually corresponding to meet the peculiar requirements of Mormon society. Polygamy requires few males in comparison with females,—the males from exhaustion can have but few sons—hence a nice adaptation of the supply to the want. How fair and consecutive this process of reasoning appears, but unfortunately it is not founded on facts! We suspect Dr. Van Molle's theory is open to the same imputation,—it requires facts also, and until he supplies them, we will look upon his deductions as the

"baseless fabric of a vision." We are at all times willing to receive statements in connection with science, but we do object to receive suggestions falsely pretending to be based on such—suggestions that would lead us to overlook the high hopes and end of our being, and calculated to degrade and vitiate our nature.

On the Causes of Death after Amputation. By Mr. Bryant, Assistant Surgeon to Guy's Hospital. (*Proc. of the Roy. Med. and Chir. Soc., Feb.* 22, 1859).

This paper is based upon an analysis of 300 cases of amputation, collected from the records of Guy's Hospital.

The author has divided them into four classes; and although he has not thought it necessary to alter the ordinary division of traumatic amputations into primary and secondary, he has made some change in the division of the other forms; for it became evident in the analysis, that the classing together of such cases as amputations for talipes, tumors, elephantiasis, deformity, and others of a like character, with those of diseases of the joints, a wrong result must ensue; and practically, this was found to be the case. He therefore divides these cases into pathological amputations and amputations of expediency, choosing the latter term as more accurately expressing the reason for the operation, as limbs are removed for tumor, talipes, elephantiasis and deformity more from expediency than necessity, and he therefore suggests the use of such term until a better be proposed.

General Conclusions upon the Causes of Death in Amputations generally.—1. That 25 per cent. are fatal; 30 per cent. of the lower extremity, 10 per cent. of the upper. 2. That pyæmia is the cause of death in 42 per cent. of the fatal cases, and 10 per cent. of the whole number amputated. 3. That exhaustion is the cause of death in 33 per cent. of the fatal cases, and in 8 per cent. of the whole number amputated. 4. That the following causes of death are fatal in the annexed proportions:

	Of Fatal Cases.		Of whole number.	
Secondary hemorrhage,	7	per cent.	1.66	per cent.
Thoracic complications,	5.6	"	1.33	"
Cerebral,	3	"	.66	"
Abdominal,	1.4	"	.33	"
Renal,	3	"	.66	"
Hectic,	3	"	.66	"
Traumatic,	7	"	1.66	"

Pathological Amputations.—1. That pathological are by far the most successful amputations, 12.5 per cent. proving fatal. Such amputations of the upper extremity are generally followed by success. Of the lower extremity, 15 per cent. terminate fatally. 2. That pyæmia is the chief cause of death, proving fatal in 43 per cent. of the fatal cases and in 5.4 per cent. of all pathological amputations; and when fatal, as a rule, it causes death within fourteen days of the operation. 3. That exhaustion, either from the shock of the accident or of the operation, from hemorrhage, or all three causes combined, is the cause in 33 per cent. of the fatal cases, or 4 per cent. of all amputations. 4. That secondary hemorrhage is the fatal cause in only 9 per cent. of the fatal cases, and in 1.4 per cent. of all amputations.

Amputations of expediency.—1. That 30 per cent. are fatal; but as amputations of the upper extremity are, as a rule, successful, the per centage of this operation upon the lower is much increased, 40 per cent. proving fatal. 2. That pyæmia is the chief cause of death, proving fatal in 60 per cent. of the fatal cases, and in 18 per cent. of all such amputations; and when fatal, as a rule, death takes place within fourteen days of the operation. 3. That death from exhaustion occurs in but 10 per cent. of the fatal cases; and that some thoracic or renal complication, or carcinomatous infiltration, are fatal causes in the same proportion.

Primary Amputations.—1. That 43 per cent. are fatal; 60 per cent. of the lower extremity, and 30 per cent. of the upper. 2. That primary amputations are more successful than secondary. 3. That pyæmia is the cause of death in 43 per cent. of the fatal cases and in 16 per cent. of the whole number, and that, when fatal, the symptoms appear, as a rule, between the seventh and fourteenth days after the operation, and cause death in the third or fourth week, and not during the first two weeks, as in pathological amputations and those of expediency. 4. That exhaustion is the cause of death in 32 per cent. of the fatal cases, and in 12 per cent. of the whole number. 5. That traumatic complications prove fatal in 15 per cent. of the fatal cases, and secondary hemorrhage, cerebral or thoracic complications, about 7 per cent. each; renal disease proving a cause of death in 3.5 per cent.

Secondary Amputations.—1. That 50 per cent. are fatal; 68 of the lower extremity, and 12.5 per cent. of the upper. 2. That secondary amputations are more fatal than primary, by about 8 per cent. 3. That exhaustion is the chief cause of death, proving the cause in 60 per cent. of the fatal cases.

4. That pyæmia is the cause in 25 per cent. of the fatal cases; secondary hemorrhage and hectic in the remaining 15 per cent.

Conclusions upon Pyæmia as a Cause of Death.—1. That it is the cause of death in 42 per cent. of all fatal cases of amputations, and in 10 per cent. of all amputations. 2. That it is the cause of death in the different forms of amputation in the following order:—1. In 70 per cent. of all fatal amputations of expediency. 2. In 43 per cent. of all fatal primary amputations. 3. In 43 per cent. of all fatal pathological amputations. 4. In 25 per cent. of all fatal secondary amputations, and that, in amputations of expediency, it is the most frequent cause, and in secondary amputations, the least. 5. That in amputations for acute suppuration of the knee-joint, whether the result of an abscess discharging into the joint or otherwise, pyæmia is a more frequent cause of death, than in amputations for chronic disease. 6. That it is the general cause of death for talipes, elephantiasis and tumors. 7. That in primary amputations, and in amputations of expediency of the leg, it is a more frequent cause of death, than in the same operations upon the thigh. 8. That, upon the whole, pyæmia appears to be a more frequent cause of death in amputations through limbs the tissues of which are in a normal condition, and where a large surface of healthy bone is exposed. 9. That in pathological amputations, and in amputations of expediency, pyæmia, as a rule, proves fatal within fourteen days; but after traumatic operations, the period of death is about the twenty-fifth or twenty-sixth day.

General Conclusions upon Amputations of the Thigh.—1. That 27 per cent. are fatal. Pathological amputations, 18 per cent.; amputations of expediency, 31 per cent.; primary amputations, 60 per cent.; secondary, 75 per cent. 2. That in amputation of the thigh for chronic disease of the knee-joint, about 16 per cent. are fatal, or 1 case in 7. 3. That amputations of the thigh for acute suppuration in the joint are generally fatal, and that pyæmia is the chief cause of death in these cases. 4. That exhaustion and pyæmia are causes of death in equal proportions; or in about 40 per cent. of the fatal cases, and in 10 per cent. of all amputations of the thigh. 5. That exhaustion is most fatal in primary amputations, and the least so in amputations of expediency. 6. That pyæmia is most fatal in amputations of expediency, and the least so in primary. 7. That primary amputations are for the most part fatal from exhaustion; 35 per cent. of the cases sinking from this cause, 15 per cent. from pyæmia, and secondary hemorrhage and traumatic complications 5 per cent. each. 8. That exhaustion,

pyæmia and hectic are equally fatal causes in secondary amputations, proving fatal in 25 per cent. each.

Amputations of the Leg.—1. That 37 per cent. are fatal. Pathological amputations, 7.7 per cent.; amputations of expediency, 66.6 per cent.; primary amputations, 62.5 per cent.; secondary amputations, 66.6 per cent. 2. That amputations of the leg are 10 per cent. more fatal than of the thigh; the amputations of expediency and traumatic amputations being more fatal, and the latter more frequent. 3. That amputations of expediency of the leg are generally fatal—being twice as fatal as those of the thigh: that pyæmia is the chief cause of death in 75 per cent. of the fatal cases, and in 50 per cent. of all such amputations. 4. That in primary amputations pyæmia is the death in half the fatal cases, or in 32 per cent. of all such operations; exhaustion and visceral complications about 8 per cent. each. 5. That comparing primary amputations of the thigh and leg together they are equally fatal, but that pyæmia is twice as fatal in amputations of the leg as in amputations of the thigh. 6. That half the cases of secondary amputations die from exhaustion; pyæmia and secondary hemorrhage being fatal in 8 per cent. each. 7. That taking all amputations of the leg together, 42 per cent. of the fatal cases die from pyæmia and 32 per cent. from exhaustion.

Amputations of the Upper Extremity.—1. That 10 per cent. are fatal. 2. That pathological and those of expediency are, as a rule, successful. 3. That about 20 per cent. of traumatic amputations are fatal; 22 per cent. of the arm and 16 per cent. of the forearm. 4. That one-third of these fatal cases die from pyæmia, one-third from some traumatic complication, and the remaining third from secondary hemorrhage or visceral disease. —*Ranking's Abstract.*

Cursory Remarks on the Diagnosis of Fatty Heart. By Henry Kennedy, A.B., M.B., Fellow and Censor of the College of Physicians in Ireland, Physician Extraordinary to Sir P. Dun's Hospital. (Read before the Medical Association, June 1, 1859.)

(From the *North American Medico-Chir. Review.*)

The knowledge of morbid anatomy has increased much within the last twenty-five years; nor must we forget that Dublin has the credit of taking the first step in this great move, by the establishment of the Pathological Society; and a student can now, by very little trouble, attain a knowledge of morbid

structure which would have been utterly impossible for even the oldest to acquire a few years since. Of the various paths to which the study of diseased structure has led, none has been more striking than the one known under the name of fatty degeneration; and very few are the parts of the frame in which this change has not been detected. It is not my intention here to speak of this subject generally. One remark, and only one of a general character, would I make; and this is, that the change known as fatty must be looked on in a different point of view from any other degeneration with which we are familiar. Neither malignant, strumous, nor other changes are to be found in the frame which is healthy. But fat is ever, and must ever be, a constituent part of it. Hence, when its presence amounts to disease, it is only an exaggeration of a healthy condition, if I may so speak. Hence, also,—and this is a deduction which it may be of much greater consequence to keep in mind,—the powers of art may fairly be looked on as more capable of grappling with this change than with others: of which more again.

I have said it is not my object to speak of fatty change generally. My present wish is to direct attention to a few points connected with this change when it affects the heart, and, more particularly, the diagnosis of this state. It will, I think, be admitted that this point is one of grave importance not only to the physician, but also the surgeon. You must be now well aware that all, or very nearly all, the cases of sudden death under the use of chloroform, have taken place in persons affected with fatty hearts. This fact alone would invest the subject with consequence; to say nothing of the interest it presents to the physician. It is, in fact, a common ground for both, and well worthy their deepest attention.

It is necessary to begin these remarks by avowing the great difficulty which surrounds the diagnosis of fatty heart. Of the common affections of the organ—and this change may fairly be classed among these—there is none which presents more; and though on a former occasion I have directed attention to this point, it is essential to do so, but very briefly, again. I believe here, as with other diseases difficult of diagnosis, that the very first step in advance consists in our getting a clear idea of the difficulties which must be surmounted. Why, then, are there difficulties in this particular affection, more that in others of the same organ? One of the reasons was given by myself so far back as the year 1849; and I would now state my impression that the fact is one of moment, as bearing directly on the point under discussion. In the course of some investigations made in that year, I was led to observe that fatty disease of the heart

and disease of the valves are not usually found together. This was, at first, an impression; but as this may be erroneous, I set about collecting data on which to found solid conclusions, and in a short time had collected some 53 cases. Of these, I found the valves were healthy in 43, which left 10 only of an opposite character. Here, then, was a fact of some consequence; and which I have taken every opportunity of testing since, and with no other result than still further confirming the point. I have noted 152 additional cases, so that the entire now amounts to 205;* and of these the valves were diseased in only 30. These numbers, I think, speak for themselves, and appear to myself to prove that valvular disease and fatty heart are rarely co-existent. The character of disease of the valves too, even when it does exist, is worth nothing; for it is very generally, though not invariably, of the thickened leathery kind: in fact, it is fatty disease of the valves, as contradistinguished from what is called ossific deposit. And this fact, again, has an important bearing on the progress of these cases, though I am not aware it has been noticed at all; for even though the valves be thickened, they may still be quite competent to perform their functions, at least so well that the life of the patient will not be shortened. In such, a souffle may be present, and persist for years and years without change, its character all through being very soft, and in some I have seen, hard to catch. The character of the souffle then has, when present, an important bearing on the case.

But before saying more on this point, I would notice a second, and, as it appears to me, a most important reason, why the diagnosis of fatty heart is often so very obscure. I allude to the fact that this change may be, and often is, partial. Of the fact you are all aware, and know that a very small portion of the left ventricle may be quite degenerated, the remainder being comparatively sound; and that, when rupture occurs, it is much more commonly in the walls of this cavity, and in a spot where they are both degenerated and thinned. Now, from this point it follows that five-sixths of the ventricle may be quite fitted to carry on its functions, and yet the other sixth be in a state which renders it liable to give way, so causing instant death; and all this without any physical sign which would be available during the lifetime of the patient. Important as this consideration is, however, it is not in connection with partial degeneration of one

* In tabulating these cases, I found it impossible to separate those which have been properly called true fatty degeneration from the others. I believe, however, that when fat exists in unusual quantity on the heart, it is rare to find the muscular structure beneath perfectly healthy.

cavity to which I wish now to direct your attention, but to the same state when it affects one side of the organ differently from the other; that is, when the left heart is more degenerated than the right, or *vice versa*. That this state occurs is perfectly well known; but it may be questioned whether the deductions which arise directly from it have received that attention, if any, which they appear to me to merit. Indeed, I am not aware of any author who has dwelt on this special subject at all. As illustrating what I mean, attention may be directed to the fifty fatal cases, under the use of chloroform, detailed in the able work of the late Dr. Snow. Any one who has read these cases may recollect how pointedly it is stated, I believe in every one of them, that the pulse at the wrist was closely watched, and, in almost all, continued to beat steadily till the very instant of death. Now it is not to be denied that watching the pulse is essential in such cases. But it is fully as essential to recollect that the healthy beat of a radial pulse may not be, and often is not, a guide to the state of the right heart. Hence the latter may have its action fatally stopped, by such an agent as chloroform, at the very moment when the left ventricle is carrying on its functions, to all appearance, healthily. And the examination of all the fatal cases seems to lead to the same conclusion; for it will be recollected that fluid blood and greatly distended right cavities were found in very nearly every fatal case. In point of fact, we have no pulse to guide us as regards the right heart; and hence a most important assistance is wanting to aid our diagnosis. In following out this part of my subject, I have been able to collect only a comparatively few cases; for attention not having hitherto been directed to the point, by far the greater number of those who have detailed cases of fatty heart have drawn no distinction between the cases, as to whether the disease was farther advanced on the one side or the other, or both. As it is, Quain gives 22 instances where the point is explicitly stated. Of these, the left ventricle was most affected in 8 cases, and the right in 4. In the remainder, the disease was equally divided. But I would not lay any great stress on these numbers; for they are too few to draw safe conclusions from. Two points, however, they show clearly: that either side of the heart may be seriously damaged while the other is comparatively healthy; and, secondly, that the disease to which the right heart is by far the most liable is that of fatty change: I mean as contrasted with valvular disease.

For so far, then, your attention has been mainly drawn to two points: first, that fatty degeneration and valvular disease rarely coexist; and, secondly, that the fatty change may be in

great part limited to one or other side of the heart. But facts like these are useless, unless they lead to some practical results. Let me, then, draw some conclusions which appear to myself to follow directly from them.

Dr. Stokes, in his last able work, speaking of the diagnosis of fatty heart, lays down the following proposition: "That although this affection may exist without valvular disease, yet the coexistence of a certain amount of alteration of the aortic valves is common; so that the combination of a slow pulse, a feeble impulse, and a diminished first sound over the left ventricle, attended with a single murmur, while the second sound remains clear, will be sufficient for the diagnosis of the disease in many cases." Now, I believe this proposition to be correct as far as it applies; and it is certainly interesting to observe that it bears out curiously, by examinations on the living, the state of morbid parts, to which your attention has been directed this evening. For you will recollect it was stated that when valvular disease exists with fatty heart, the valves were what might be called leathery; that is, a state which might give rise to a murmur with the first sound, and yet leave the second healthy; and my own examinations on the dead body showed me that the valves, in this state, were quite competent to prevent all regurgitation, and thus give a healthy second sound. The proposition, I have said, was correct as far as it applies; but after the numbers given this evening, it is obvious it must be taken as proving the exceptional case. For they show, to my own mind indisputably, that fatty heart is much more commonly found existing by itself than with valvular disease. My first paper on the subject appeared five years before Dr. Stokes's work, and I take it for granted must have escaped his notice; otherwise I think his views would have been modified by it.

In connection with this thickened state of the valves, as contrasted with ossific deposit, there is another point worthy of notice. It has been long usual to connect visible pulsations of the arteries with open aortic valves. I satisfied myself, many years back, that this statement must be received with exceptions. In other words, you may have visible bounding of the arteries, where the valves of the aorta are not open, and where they prevent any regurgitation; and it is, as far as I am aware, when the valves are partially thickened that this state of things is to be observed. In such cases you may have a single first sound, as observed by Dr. Stokes; but in addition you may have—for it is not constant—visible pulsation of the arteries. And it need scarcely be observed that this bears, in the most

direct way, on our prognosis; for this pulsation is not of the serious character of the disease described so well by Dr. Corrigan, and, I know from observation, does not affect the patient's life in the same way, and may go on unchanged for years. This thickened, and, as I believe it may be called, fatty state of the aortic valves, it is then essential to distinguish from any other diseased state of the same parts. It does not, I repeat, affect life in the same way as other valvular disease; is found chiefly in connection with fatty change in the texture of the heart itself; gives rise, in some instances, to visible bounding of the arteries, but at the same time not allowing of regurgitation; and, if to Dr. Stokes's observations my own be added, may, I believe, be diagnosed during life.

We now pass on to a consideration of those cases of fatty heart where no valvular disease exists; and here it is, in truth, that the diagnosis of fatty heart really commences; in other words, in a considerable majority of cases, no morbid sound exists by which our attention might be directed to the organ. If there be a morbid sound of any kind, it must lead to further investigation. But in its absence matters become very different. Hence we must start with the definite idea, that the great probability is, no morbid sound will be present to assist us. But, before going further, I would call attention for a moment to one or two points, which, in an inquiry of this kind, may not be out of place.

In the first place, I would notice the very peculiar arrangement of the muscular structure of the organ. A boiled heart is an excellent way of showing the very extraordinary way in which the muscles are interlaced with each other, and yet at the same time so disposed of in layers one over the other, that they might be described as being separate. To this state of parts we must add the peculiar arterial supply; for the coronary arteries barely, if at all, inosculate. In the large nervous supply, too, we must not overlook the close connection of the heart with the system by means of the eighth pair, at the same time that it receives a large supply from the sympathetic, and has, so to say, a special supply within itself, in the existence of ganglions found in its substance, and discovered, I believe, by Lee. In the last place may be noticed the way in which fatty disease exhibits itself in this organ. It is often, as all are aware, in spots which may be wonderfully isolated, being surrounded by healthy structure; or, it may be in layers, giving a striated appearance to a section of the walls of the particular cavity affected; or, should the entire thickness of the part be attacked, it is then usual for the inner surface to be the most

diseased; or, with the muscular structure healthy, fat may be deposited on the surface of the organ in such quantity as to impede its action, and so constitute disease.

Keeping now these facts, both of the healthy and morbid heart, in view, on what, then, is the diagnosis of the disease to be founded? And it is to be remembered that you have no abnormal sound to assist you. Attention must be caught if there be any unusual murmur. But the existence of murmur is the exceptional case. After a good deal of attention to the subject, I really see no means of making a diagnosis, except, after the French method, by way of exclusion; and it even is not all that can be desired. I am well aware that writers give several physical signs as diagnostic, such as a weak beat at the heart or of the pulse, or muffled, distant or weak sounds. But I have the strongest conviction on my mind that, in so doing, they have not made allowance for what obtains in health. They have argued as if the impulse, sounds, and pulse were, so to say, fixed quantities; which I believe to be an error. For I have satisfied myself — as others, I think, must have done — that, within certain limits, and in a state of perfect health, both the sounds and the impulse of the heart vary very considerably; and so it is that you may have a strong or a weak pulse or impulse, and a great variety in the intensity of the sounds of the heart; and all these, I repeat, within the circle of health. The very same remarks, too, apply to the respiration, as I am sure all present must have observed. If, indeed, we see a case where, after the sounds have been natural, they then become muffled or weak, such would be a source of diagnosis. But every one is aware that cases do not come under notice, and that our opinion must very usually be formed from one or two observations. Should the disease be in the very advanced stage, then also, from the extreme feebleness of the sounds and impulse, assistance is afforded us. But at this period there are other signs which clearly show the state of the organ; and I would speak of an earlier stage, when it is really of much greater moment to make out the disease.

For the reasons just given, I would then say that in the comparatively early stage of fatty heart, we must look with great caution to either impulse or sounds to assist the diagnosis, unless in the exceptional case of which I have spoken. There is a physical sign, however, which, though not always present, may give us valuable assistance. Nor do I find that any writer has noticed it in connection with the diagnosis. I speak of enlargement of the heart where there is also fatty degeneration, and this without valvular disease. In Quain's valuable tables,

which I take as independent observations, and so going to confirm my own, out of 83 more than half presented this state. Hence I cannot but conclude that enlarged heart forms an important element in what may be called the natural history of the affection; and I do not find that, in this point of view, it has been noticed by any recent writer. Fatty change is, in truth, by far the most frequent cause of enlargement of the organ, where there exists at the same time no valvular disease. For every one must be aware that hypertrophy *per se*—the heart's texture remaining sound—is very rarely met with. Hence, if we have an enlarged heart and healthy valves, the strong presumption is that the organ is fatty. But even with a previous knowledge of this fact, I am ready to admit that enlargement, even to double the average size, is not by any means so easily made out as might *a priori* be supposed. In the great majority of the cases, there is more fat than natural under the skin; and nothing is more common than to find it in quantity in the anterior mediastinum, to say nothing of the varieties to be met naturally as regards the relative position of the lung and heart. Still the difficulties may, I know, be often overcome by an accurate examination; and I would specially mention the plan of using percussion in varied positions of the body. But some one may ask here, is not this enlargement of the organ just as likely to be overlooked as any other physical sign connected with the disease? My answer is in the negative; and for this reason, that the pulse at the wrist leads us to look for it. You are all aware that on this last sign much has been written as diagnostic of fatty heart. I must here state my conviction, that it has been the exceptional cases which have been commonly described as marking the disease; such as slow, unequal, intermitting, or very rapid pulse. Now, I do not deny that these occur in cases of fatty heart. I have met examples of all of them. But what I do say is this: that the pulse most usually met is natural as to frequency; at the same time that it is fuller, passing sedately, as it were, under the finger, and giving the idea of being diffluent. It is, in truth—contrary to what is usually taught—the pulse of hypertrophy, but not attended with the same strength; and Hunter's expression might almost be applied to it, as being "action without power." Now, you will observe that such a pulse is exactly in keeping with the state of the heart which has been just described; it is what we would expect; and whatever doubts may arise about the most common character of pulse, there can be none, it may be stated, as to the frequency with which enlargement of the

heart occurs in fatty degeneration, being fully one-half the cases detailed. I stop not to inquire the precise cause of the hypertrophy, but only to state the fact, and my own experience about it.*

Of the other kinds of pulse met in these cases I have little to say. Next in frequency to what has been described I would place inequality of the beats, not intermission. Some writers, I observe, speaking of this sign, seem at a loss to account for it, in the absence of valvular disease. To myself a fair explanation is afforded in the peculiar anatomy of the organ, glanced at this evening, taken in connection with the fact that fatty disease exhibits itself in spots, patches, or layers; a state of parts which may, without any straining, be expected to give rise to unequal action of the organ, and, consequently, unequal pulse: and, indeed, I may say that I have seen cases where a kind of double beat at the heart was attended by but a single one at the wrist.

Of the several symptoms in connection with fatty heart, and referred to the head, chest, or abdomen, it is not my intention here to speak. I would refer to the several writers on the subject; but more particularly to the able work of Dr. Stokes, which, as far as I am aware, contains the best *resume* of the matter. There are just two symptoms which appear to me to call for a moment's notice. The first is the dyspnœa, which, you are all aware, constitutes such a striking feature of the disease, especially in the middle and latter stages. Now, it is not the symptom itself to which I would direct attention, but the disproportion which almost constantly exists between the complaint of the patient and the labor of the respiration as evidenced to our eyes. In the history of the complaint, I am really not aware of any other single symptom more striking than this. The patients tell you that their great suffering is from dyspnœa, that they cannot make the slightest exertion; and yet, when you look at them, you see little or no corresponding movement of the chest. The contrast between this state and where there exists valvular disease, as, for instance, of the left auriculo-ventricular opening, is truly striking. Nor does this state exist only where there is fatty heart. It will be observed where the patient, in addition, gets an attack of bron-

* It has yet to be determined whether slow pulse occurs in any particular form of fatty heart. That it is by far the exceptional case, I have no doubt; and were I to venture to connect it with any one state of the organ, it would be that in which, without any enlargement, there existed true degeneration of the heart's texture; the patients being anything but fat. In most of such cases the effects of wine are truly remarkable.

chitis, very slight to all appearance, and yet a most fatal affection; and I have reasons for knowing that grave errors in prognosis have arisen in these cases, as, I believe, from the very cause to which I allude; that is, the respiration looks so quiet as to throw the medical man off his guard. It was gradually that I arrived at what appear to be fair reasons for this state of things. In the first place, the cartilages of the ribs are very generally more or less ossified; in the second, the intercostal muscles are very apt to be either covered with fat or degenerated; and, in the last place, the heart itself, while seriously altered in its texture, does not present any impediments, in the shape of valvular disease, to the current of the blood; and thus it is, with a disease of slow progress, as we must suppose fatty degeneration to be, that the system gets gradually accustomed to the change, and to a degree which it is impossible for it to do when there exists a direct obstacle to the circulation. It has further appeared to me that this want of proportion—as it may be well called—between the patient's sufferings and the physical exertion to relieve them, is particularly to be observed when the right heart is the furthest advanced in disease; and bearing out this, I have seen cases where the pulse at the wrist was steady and equal, not beating more than 86 in the minute, and this going on to the very last moment of existence. At any rate, whatever the explanation be, the fact itself has repeatedly come under my notice, and appears to me one well worthy of attention.

In the last place, I would notice a general sign which I think of consequence to look for, even though not always present. I mean a failure in the animal heat. It has been noticed casually by some writers. I would be inclined to give it much greater prominence. In some cases I have seen it was very striking; and it is worthy of note, as not being confined to the extremities alone. The patients have complained of it in the sides, and back, and stomach. Any complaint of this sort should ever, I believe, catch our attention.

It was my intention to have said something on the treatment; but my present limits forbid. I shall, therefore, only observe, that I was glad to find the possibility of a cure in the early stage of fatty heart, which was strongly advanced by myself ten years ago, and since then been supported by Dr. Stokes, in opposition to the views of Quain and others. But I can only here remark, that if we should attempt the cure, we would not have, in the majority of cases, any valvular disease to contend with.

In concluding these remarks, which it must be recollected are

strictly cursory, it may be well to throw into a series of propositions the chief points brought forward.

1. That fatty change in the heart is rarely attended with valvular disease.

2. That, with our present knowledge, the proportion seems to be as six to one.

3. That when valvular disease exists with fatty heart, it is commonly the aortic valves that are affected, and these are thickened and fatty.

4. That this state of the valves rarely allows of regurgitations.

5. That it may give rise to a soft souffle with the first sound of the heart, leaving the second healthy, as observed by Dr. Stokes.

6. That there are grounds for supposing that this fatty state of the aortic valves may go on for years, without affecting the duration of life.

7. That visible pulsation of the arteries often attends this state; but as there is no regurgitation, it so differs from the disease described by Dr. Corrigan.

8. That enlargement occurs in more than half the cases of fatty heart.

9. That, in keeping with this, a large diffluent pulse is the most common kind to meet in fatty heart.

10. That either a very slow, unequal, or rapid pulse is only met in exceptional cases.

11. That the French way of exclusion is, in the absence of valvular disease, the chief way of arriving at the diagnosis of fatty heart.

12. That there is often a marked disproportion between the complaints of the patient of dyspnœa, and the physical efforts made to relieve it.

13. That this is possibly most marked when the right heart is the furthest advanced in disease.

14. That a marked diminution of the animal heat, which may, too, be confined to unusual parts of the body, is often met in connection with fatty degeneration.

15. That fatty degeneration of the right heart is the disease which most frequently affects that portion of the organ.—(*Edinburgh Medical Journal*, July, 1859.)

Late Researches on the Atmosphere.

(From the *New Orleans Medical and Surgical Journal.*)

The activity of chemistry, in its examinations of the accidental and essential constituents of the atmosphere, has been very great during the past year. We propose throwing together some gleanings from French and English journals on the subject, that will be of interest in a hygienic point of view.

Iodine in the Atmosphere.—Bouis has detected iodine in the rain-water of Paris during the months of April, May, June, July and August. Since it is the opinion of some medical men that the iodine contained in the air is not without some influence on public health, Bouis considered it a matter of importance to determine in what condition it existed in the atmosphere. The solution of this question is a very complicated matter, and he has made many fruitless experiments; but the results are so interesting that they are worth publication.

Being of the opinion, advanced by Chatin, that iodine is in a free state in the air, he endeavored to detect this substance, in the first products, in the distillation of rain-water; but he discovered that it remained in the residuum of the distillation, and, as rain-water always contains ammonia, he supposed that the iodine would be found in it as iodide of ammonia—a compound only slightly volatile. But the use of perchloride of iron showed that the iodine, in a large number of cases, was associated with organic substances that concealed its presence. If rain-water contained iodine in a free state, distillation alone would eliminate it; or if the iodine was in the condition of an iodide, the addition of perchloride of iron would make its elimination easy—but this is rarely the case.

In treating rain-water with perchloride of iron very slightly acid, brownish flakes are formed, resembling crenate of iron, in which case iodine cannot be determined in the products of the distillation; but if, after such treatment, the ochreous deposit be calcined, in the presence of carbonate of iron, the organic matter is destroyed, and then it is an easy matter to detect the iodine.

Bouis concludes that iodine is found in rain-water, sometimes in the condition of iodide of ammonium, but most frequently in combination with organic substances.

Atmospheric Ozone.—Dr. Moffat read a paper on the subject, at the meeting of the London Meteorological Society. He stated that a slip of paper moistened with iodide of potassium and starch becomes brown after exposure to the air, but after a longer exposure it lost this color; that if suspended over a cess-

pool the brown discoloration would not be produced, and if a brown slip were suspended over a cesspool it would also lose this color. "In these results," the author observes, "there are proofs of three distinct agents: one, ozone, which decomposes the iodide of potassium; the iodide being set free, produces the brown color. The second, sulphuretted hydrogen, the hydrogen of which removes the brown color by combining with the iodine, and forming hydriodic acid. The third, incompletely oxidized substances, the products of decomposition of animal and vegetable matter, which are more easily oxidable than the oxide of potassium." "As the products of putrefaction and combustion are found at the earth's surface," Dr. Moffat concludes that "the quantity of iodine must be greatest in the lowest strata of the air, and that consequently the quantity of ozone must *there* be at its minimum." He also states that where the air is stagnant ozone is at its minimum; and that as the north current is the lower stratum of air in motion, it is the minimum ozonic current, while the south current, being the higher air in motion, is the maximum.

The north current is the "death current," the south that of "sporadic diseases." The deadly effects of a calm are attributed to a concentration of the products of the decomposition of animal and vegetable substances, which substances are made innocuous by ozone, since it oxidizes them. In calms, fevers and cholera prevail, and the type depends on the degree of concentration of poison. Dr. Moffat has seen "an epidemic commencing with scarlatina run into typhus, and terminate in a disease of choleraic type, rapidly decline after cleansing and draining. We have no power over the winds, but he believes that if a south or ozoniferous current could be directed into 'fever nests,' or into cholera localities, these diseases would vanish; and in proof of the correctness of this opinion, mentions that cholera declined at Newcastle in 1853, and in London in 1854, after the setting in of the ozoniferous current."

Mr. H. S. Eaton read a paper at the same meeting of the Meteorological Society, showing, from tables, that "ozone was prevalent to the largest extent when the direction of the wind was between the south and west points of the compass, and when the amounts of rain and cloud were greatest; and that the least amount of ozone was coincident with winds having a northerly and easterly direction, and with the least amount of cloud and rain." These results, it will be observed, agree, in the main, with those of Dr. Moffat.

Measurement of the Variable Intensity of Ozone.—Dr. Lankester has devised an instrument for this purpose, composed of

two cylinders, contained in a box, on which is wound a band of prepared paper. The arrangement is set in motion by ordinary clock-work. As the band leaves the one cylinder it is wound up by the other, and the arrangement is so managed that but a small portion of the paper is exposed at any time to the action of the air. The whole band is divided into twenty-four parts, corresponding with the hours of the day. The quantity of ozone which the atmosphere contains at different periods of the day is thus indicated by the different coloration of the divisions.—L. H. S. (*Am. Med. Monthly.*)

CLINICAL RECORDS.

(From the *London Lancet.*)

Tonics and Iron in Erysipelas of the Face and Scalp.—We very frequently see the value of the treatment of erysipelas of the scalp and face by the exhibition of the muriated tincture of iron conjoined with tonics, and dusting the inflamed skin with flour, not neglecting proper attention to the chylopoietic viscera. We might refer to several recent instances in which the efficacy of iron has been marked, but shall content ourselves with noticing that of a woman in Guy's Hospital under the care of Dr. Wilks. She is fifty-seven years of age, and was admitted on the 6th inst., but the erysipelatous inflammation had set in a few days before that period, and extended all over the face and the scalp. Its intensity was not so great as to cause closure of the eyes, nor were the features altogether obliterated. The scalp was remarkably swollen, puffy, and extremely tender. When placed in bed, on her admission, the inflammation had apparently subsided, and evidences of desquamation were already manifest. Nevertheless, she was in a precarious condition, being very weak and low, and evidently requiring generous and supporting treatment. Twenty minims of the muriated tincture of iron were ordered every four hours, with eight ounces of wine, porter, and light nourishment. She now began to improve, and when we last saw her (on the 12th instant) she was sitting up in bed, with still some disfigurement of the features, and puffiness and usual tenderness of the scalp. Her improvement was uninterruptedly steady under the use of the steel, and she is making a good recovery. We have seen cases thus treated from the beginning with equal advantage.

Excision of the Knee-Joint for Old Standing Disease.—On the 7th instant we were present, at the Great Northern Hospital, when the knee-joint of a man, twenty-six years of age,

was removed by Mr. Price. It was one of those cases of disease which he believes to be well adapted for the operation. It was surmised that the mischief was confined to the synovial membrane and the cartilages of articulation. On opening the joint purulent fluid escaped. The ends of the articulating bones were found in the condition expected: the synovial tissue had almost disappeared; the cartilages were entirely removed, except a few spots; while the exposed bone was healthy in appearance, vascular, but not ulcerated to any great extent. The patella was deprived of its cartilage, and was removed. We noticed that the operator, in opening the articulation, first reflected only on the skin and sufficient of its cellular connections, so that the infiltrated fat and loose tissues which generally abound about the joint when it has been long diseased, formed no part of the flap. Should any unhealthy inflammatory action set in, this altered structure is liable to slough and greatly complicate the treatment of the wound. The hæmorrhage was more copious than usual, the soft parts and periosteum being extra vascular. The limb was adjusted in a manner recommended by the operator, and up to the present time, the patient has expressed himself greatly benefited by the operation, his appetite and sleep having returned.

Disease of the Sternum simulating Aneurism. — The following case is one of great interest, and is still under treatment at the Hospital for Consumption, Brompton, under the care of Dr. Edward Smith.

An athletic man, aged thirty-two, engaged in a gunpowder factory, had felt palpitation of the heart, after moderate exertion, for twenty years. Fourteen years ago he had rheumatic fever during six weeks. He has at various times been much alarmed by explosions. He has been accustomed to make great muscular efforts, particularly in turning a crank or a mill, in which he had to use great effort in dragging toward himself. Whilst engaged in this violent labor about sixteen months ago he felt a sudden giving-way within the chest, and soon afterwards first perceived a bulging at the middle of the sternum.

July 7th, 1858. There is now a bony projection, beginning about two inches from the top of the sternum, extending downwards four inches, and transversely three inches, having its highest part opposite the third rib. There is no tenderness on pressure, but the surface is red and covered with hair. He has scarcely any internal pain, but there is a sense of stretching about the sternum, and at night he feels a little throbbing chiefly on the left side. There is no purr, nor any pulsation perceptible to the touch. There is a musical blowing with the

second sound over and to the left of the sternum, and a non-musical and soft murmur about the apex of the heart. The bruit is not loud anywhere, but it extends to the top of the sternum and to a wide extent below. There is a rough systolic and a feeble diastolic bruit at the apex, and there is pulsation ardent and natural at the apex of the heart and its vicinity. The pulse is 76, full, even, and regular in both wrists when sitting, and the respirations are 23 per minute. No unusual pulsation in the carotid or subclavian arteries, nor any turgidity of the veins.

The case was thus obscure, but it wore a serious aspect, and a fear was entertained less it should be proved to be one of aneurism of the ascending aorta.

Sept. 1st. Again examined, and presents the same symptoms.

15th. He has had a little pain in the right breast, and a sense of pressure on each side of the chest when lying down.

Oct. 6th. There is more pain, and it is of a darting character; the tumor is a little larger; there is no dysphagia; his appetite is not good; and a careful examination of the lungs shows that there is lessened vesicular action. There is still a blowing diastolic sound, and it is sharper on the right of the sternum; arterial pulsation still regular. He is beginning to stoop somewhat, and there is insufficient respiration.

20th. He has suffered somewhat more pain at night, but pain has never been a prominent symptom. There is now fluctuation perceptible at the lower part of the tumor and in the space on the left of the sternum, but there is no thrill nor pulsation there. He has experienced one or two attacks of shivering.

At this period the case became less obscure, for it was almost certain that the pulsation was due to the presence of a little fluid in the anterior mediastinum. The case was now examined by a number of Dr. Smith's medical friends, and the general opinion arrived at was, that it was not a case of aneurism.

Nov. 3. Still in the same state.

11th. Dr. Smith showed the case to Mr. Fergusson, the consulting surgeon to the hospital, who regarded it as one of disease of the bones of the sternum. The patient would not permit an exploring needle to be used, as his club surgeon had informed him that he was suffering from an aneurism.

24th. No change.

27th. A small bladder of the size of half a hazel-nut has formed where the fluctuation was perceptible, but no discharge has taken place.

Dec. 8th. The health has improved, and the bladder is a little shrunken at the top.

21st. On the 18th there was a very small quantity of clear fluid discharged, which formed a small crust; and the bladder is a little shrunken.

Jan. 5th, 1859. The bladder is slightly enlarged, but there is no change in the condition of the tumor.

May 20th. Still in the same state, and able to do light work.

This case is very interesting from its obscurity in its earlier stages, and shows well how guarded the practitioner should be in forming an opinion as to the nature of such diseases, and more particularly in expressing any opinion to the patient. Its march has been very slow, and unmarked by any prominent symptom, and seems to be very much independent of any control on the part of the physician or surgeon. Dr. Smith's aim in treatment was to prevent local irritation and to maintain and improve the general health, but particularly to remove the habit of feeble respiration and to cause the diminution of the vesicular murmur, which constitutes the first stage of phthisis, and tends so frequently to the deposition of tubercle. This has been in great part effected.

Tobacco-Pipe Stem in the Throat.—The recent wound of the throat by a tobacco pipe, in which the carotid artery was tied by Mr. Ure, at St. Mary's Hospital, will be in the recollection of our readers. The ligature came away on the eighteenth day, and the poor man was progressing very favorably, but with the inconvenience of almost complete closure of the mouth, which had remained since the day of the accident. He was put upon a grain of sulphate of iron three times a day, with evident advantage. On the 22nd of June, he felt something in his mouth, and on introducing his two fingers withdrew the stem of the tobacco-pipe from beneath the left side of the tongue, where it had remained unsuspected and unobserved for several weeks. It measured two inches and three-quarters in length. The removal of this body permitted the mouth to open wider, and the rigidity of the muscles of the jaw to relax. No bad consequences have ensued, and as we had already predicted, a good recovery has taken place.

Encephaloid Disease of the Epididymis.—A lad sixteen years of age was admitted, on the 22nd ult., into University College Hospital, with encephaloid disease of his left testicle, which had grown within seven months to the size of a cocoa-nut. By the end of the next few days, it had increased nearly three inches, so no time was to be lost in its removal, which was performed by Mr. Erichsen on the 27th. The anterior part of

the scrotum was red; the tumor was soft in front, but indurated posteriorly; and although the disease was extensive, the spermatic cord was unaffected. A section of the tumor showed the body of the testicle to be quite healthy, situated in the centre of the diseased mass which had originated in the epididymis. The wound was attacked with erysipelas the next day, which is prevalent just now, and temporarily retarded the healing action, but the boy is otherwise doing well.

We were present at the Middlesex Hospital on the 25th of May, when the right testicle was removed from an elderly man for the same disease. It originated in a blow ten months before, and had latterly much increased in size, until it was as large as a fœtal head. For three months after the blow no great inconvenience was experienced. From the general appearance of the man, there was no doubt that he had serious internal organic disease, which would endanger his life at a later period. He has recovered from the effects of the operation. A section of the tumor showed it to be the well-known form of the disease, with the development of several small cysts. Metallic sutures were used to bring the edges of the wound together.

Nasal Carcinoma.—We were lately shown a patient under Mr. Coulson's care at St. Mary's Hospital, who had a carcinomatous tumor in rather an unusual situation. It occupied the left side of the nose, was oval in shape, of the size of an almond, and was partly hollowed out by ulceration. He was admitted on the 24th of June, and stated that the disease commenced about a year ago, in the form of a small pimple over the left nasal bone, which slowly increased in size, became inflamed, and then ulcerated. Various caustics were employed—amongst others, strong nitric acid—for destroying the surface, followed by the application of the concentrated chloride of zinc. It is quite possible, with perseverance and attention on the house surgeon or dresser of the patient, in applying the caustics, that the ulcer may be got to heal. When we last saw it, it had an angry and irritable look, which had been somewhat increased during the prevalence of the great heat of the last few days.

Useful Plan of Supporting Stumps after Amputation.—At Guy's Hospital, for the last two years, Mr. Hilton has been in the habit of supporting the stumps of amputated thighs in a manner which is worthy of notice, from its cleanliness and convenience, together with the comfort accruing to the patient. It consists in applying a short and broad splint under the stump, which is elevated at an angle of forty degrees; beneath the

splint is a small cushion, and a light bandage is applied over all. This permits of examination and dressing without the slightest disturbance to the patient, the stump always looks clean and healthy. The cases in which it is at the present moment employed are the following:

A young man, twenty-two years of age, was admitted on the 23rd March for extensive pulpy degeneration of the synovial membrane of the left knee, with incipient disease of the lungs. The former had existed for twelve months, and was making rapid inroads upon his health. The thigh was removed at its upper third on the 23rd ultimo; and when we examined the stump on the 5th instant, it had almost entirely healed, and looked remarkably clean and healthy from the way in which it was put up. The phthisical symptoms have completely subsided.

A second case was that of a man, aged forty-eight years, who, as we gather from the notes of Mr. Tuck, his dresser, was kicked by a horse on the knee twenty-one years ago, causing at that time a wound over the patella. He has been subject to frequent attacks of pain and swelling ever since. Three years ago the symptoms generally increased. Seven weeks back an abscess was opened at the side of the knee, and subsequently two openings had to be made to let out pus from the joint. The bones were much diseased, and he had suffered most acute pain. Considering his age and other circumstances, Mr. Hilton thought the most prudent course was amputation through the thigh, which he performed on the 5th instant, under chloroform. When placed in bed, the stump of this patient was carefully put up by Mr. Tuck in the manner already described, and we learn he is going on extremely well.

Tumor of the Parotid. — When a tumor extends somewhat deeply in the parotid space, its removal is often associated with a good deal of troublesome bleeding, even though no arterial trunk of any importance may be wounded. This fact we saw again verified, on the 15th of June, at University College Hospital, in a woman sixty years of age, who had been subject to a swelling in the left parotid space for from fourteen to sixteen years. Latterly, it had become active in its development, it was increasing in size, and getting soft at its most prominent part, where the integuments were discolored. This change Mr. Erichsen believed to be simple disorganization. The tumor was movable, and one portion dipped round the ramus of the jaw. Its attachments were considered not too deep for excision. It fully occupied the parotid region, although it did not involve the parotid gland; it was as large as the fist, and was in front

and below the ear. It was successfully removed, together with a small portion of the temporal muscle, but the temporal artery was unavoidably divided in the course of the operation. This gave rise to considerable hæmorrhage, which was only controlled, after the lapse of some time, by the aid of many ligatures and the application of the perchloride of iron. The tumor proved to be fibro-plastic, undergoing degeneration, disintegration, and actual calcification in that part of it which was situated behind the ramus of the jaw. On the second day after the operation, she was attacked by erysipelas, and was in a precarious state for some days, but she is now slowly recovering, and the wound is fast closing.

Some weeks back, Mr. Quain removed a tumor from the neck of a woman aged about thirty-four, which had been growing for fourteen or fifteen years. She was pregnant at the time, but this did not prevent the wound from healing very rapidly. She was subsequently discharged from the hospital quite well.

Double Fistula in Ano, treated by a Single Division of the Sphincter.—Although at first sight it may seem to be a trifling matter, whether one or more divisions of the sphincter ani muscle be made in cases of complicated fistula about the anus, in reality considerable importance should be attached to it if the future comfort of the patient is considered. There can be no doubt whatever, as we heard Mr. Ferguson remark, at King's College Hospital, on the 2nd instant, that if there are two or more divisions of the sphincter muscle, subsequent union does not permit of such an amount of control over its functions as when one only is made. Being aware of the truth of this from experience, he treated the case of a young woman, who had what might be called a double fistula, in the following manner: Three years ago she had an abscess in the perinæum, which burst externally at the margin of the anus; probably a second formed, which also burst externally, but the two cavities merged into one. This aperture, on examination, was found not to communicate with the rectum, and was, therefore, what is called, in surgical language, *a blind external fistula*, with a double opening. Instead of running a bistoury through the sphincter in two places, as we have seen done by some surgeons, Mr. Ferguson divided the skin between the fistulæ, and laid open the cavity to which they were the outlets. He then cut through the sphincter nearest the upper fistulous opening, in the usual manner, and the wound was carefully dressed from the bottom. Thus, by a very simple proceeding, the case was converted into one of ordinary fistula in ano.

The practical surgeon will at once recognise the benefits to be derived from an avoidance of multiple divisions through the sphincter ani.

BOOK AND PAMPHLET NOTICES.

A Practical Treatise on Enteric Fever; its Diagnosis and Treatment: being an Analysis of One Hundred and Thirty Consecutive Cases, derived from Private Practice, and embracing a Partial History of the Disease in Virginia. By James E. Reeves, M. D. Philadelphia: J. B. Lippincott & Co. 1859.

On finding we had a new work on fever to notice, we acknowledge we anticipated anything but pleasure in the task, supposing we should have some new theory of the disease to encounter, just as unsatisfactory and as fanciful as others we have hitherto had to animadvert on. We find, however, on perusal, all cause for such apprehension to be groundless. The author, wisely eschewing speculation, plunges at once *in medias res*, and proceeds to a practical consideration of his subject.

Dr. Reeves *in limine* objects to the term "typhoid," as applied to the form of fever in which we so frequently meet with a lesion of the lower fifth of the small intestines, and prefers that of "enteric," as being more precise, and essentially characterizing the disease. Now, it must be remembered that this lesion of the intestine which gives so much weight to the proposal of substituting the latter prefix, is not one universally present in the fever in question, and cannot therefore be looked on as an essential symptom; besides, it exists in other diseases without being necessarily accompanied by typhoid symptoms, and even in typhoid fever itself the severity of the disease is not always in proportion to the local affection. We are therefore disposed to retain the proscribed term until we get a better. In our present state of knowledge it has one advantage—it involves no theory.

That it is very rare to meet that remarkable condition of Peyer's and Brunner's follicles in other acute diseases, we readily concede; yet Peyer's glands have been seen both raised and red in scarlatina by Louis, and Brunner's follicles

more frequently still have been similarly affected in the same disease. We allow this lesion to be a very general concomitant of typhoid fever; but if we can show a single case presenting the same symptoms and observing the same progress of this fever, and yet on a post-mortem examination failing to manifest either an erythematous, an exanthematous or an ulcerated state of the ilium, we shall be justified in not considering the intestinal lesion as essential to typhoid fever. We can, in corroboration of our statement, with confidence, refer to the reports of the government fever hospitals of the United Kingdom, particularly those of Ireland, where this fever never ceases to exist,—where it, in fact, seems to assume a fixedness of endemic character.

The author proposes a division of the symptomatology of of "enteric" fever into three distinct forms: simple or mild, intermediate and malignant. This conduces to facility of description, and aids the student in arranging and comprehending the several phenomena thus systematically presented to his mind.

In the second chapter, we have a clear and faithful statement of the symptoms that usher in the affection, and of those which develope themselves during its progress. As the author proceeds, he dwells on the absolute and relative importance that attaches to each in diagnosis and prognosis. And here, in passing, we must say, that though our experience warrants us in sustaining his several statements in connection with this part of his subject, still we do not hesitate to state it would have, with advantage, admitted of further amplification. Every one who has seen practice, must be aware how valuable in fever the pulse is, in view to prognosis; yet here, about forty lines, and no more, are devoted to its consideration. There is no allusion to the abnormally slow or even the normal pulse of health occasionally observed in fever—both of serious augury. The slow pulse of convalescence and the other varieties of pulse with which practical men are familiar, are altogether unnoticed. The same observations will apply to every other symptom considered with a view to prognosis. Dr. Reeves has limited himself to a space within which he cannot profitably comprise so many and such important objects of enquiry. The chapter on "Anatomical Lesions" is simply correct, but adds nothing to

what we learned long since from the French pathologists. Much pains seem to have been taken in collecting the opinions of his medical friends respecting their views generally of the disease and their experience of its first advent to their respective districts. The replies to the author for the most part imply considerable intelligence and close observation of disease, both of which, from our personal knowledge of the profession in Virginia, we were quite prepared to expect. Our space will not permit us to follow Dr. Reeves whilst engaged in the task of searching out the causes, determining the duration and unravelling the complications of typhoid fever. We must hasten on to that part of the work wherein the treatment is considered.

The author advocates the employment of emetics at an early stage of the disease, whenever there is nausea and a bilious coating on the tongue. Sometimes, even at an advanced stage, he thinks, under certain circumstances, they may be useful. Though, under certain circumstances, the treatment of fever may with advantage be commenced with emetics, yet the administration of an emetic may be followed by the worst consequences—if there be tenderness of the epigastric region, or a tongue indicating any amount of gastritis, an emetic most probably may manufacture much trouble for the physician and danger for his patient. How often have we seen the tongue become dry and red, tympanitis rapidly set in and other grave symptoms quickly follow the ill-timed and otherwise injudicious administration of an emetic?

In the commencement of the volume the author very properly animadverts on the impropriety of increasing the irritability of the bowels by vain efforts "to purge off" what patients often considered a bad cold—yet under the head of treatment we find him approving of the administration in the early stage of a brisk purgative of calomel and jalap. This does not quite accord with our notion of safe practice. Two more dangerous medicines in typhoid fever cannot be employed. Many a disastrous termination can be traced to the employment, even at an early stage, of "a brisk purgative." We well remember the days of calomel and black draught—the deadly weapons with which each medical onslaught was commenced—with such

fatal effect to unfortunate patients, "pollas d'ipthimous psuchas Aidi proiapsen."

Dr. Reeves next considers the expediency of giving small doses of mercury—"When the tongue is dry, the skin parched, scanty urine, diarrhœa and tympanitis, delirium or stupor, twitchings of the tendons, a small and weak pulse, the propriety of small doses of mercury, with a view to its specific effect, by some authorities, is urged with no little emphasis." He refers to Dr. Wood as an authority in support of its exhibition. This was the fashionable practice some twenty years ago or more, at the other side of the Atlantic, and worse could not be well conceived. It succeeded the mania in the profession for phlebotomizing, which was about the most murderous means medical ingenuity ever devised. If the former slew its thousands, the latter slew its tens of thousands.

"General blood-letting is now very rarely practised in enteric fever. Formerly the same caution and nice discernment now observed in its employment was not exercised, and to this, more than from any other cause, perhaps, may be attributed the very great increase in the number of recoveries in late years. In those cases which bear a severe character from the beginning, where headache is violent, increased sensibility to light and sound, the pulse full and strong, high fever, with a robust and plethoric habit, it may be proper to abstract a moderate quantity of blood from the arm; but unless it is resorted to during the first two or three days of the disease, it had better be omitted." This is eminently practical and exactly reflects our own opinion.

Veratrum viride, as a remedy in fever, next receives the author's attention.

When we consider that in fever the primary symptoms mark a depressed and enfeebled state of the nervous system, we question much the prudence that would suggest the administration of a medicine like veratum viride, the action of which must either directly or indirectly increase the very state it is our aim to combat. Individually, we have no experience of the medicine in this disease, but nothing short of evidence, resulting from the extensive and careful observation of numerous

cases, suitably selected to test the matter, can reconcile us to its employment in a disease where its properties appear so little in accordance with the indications we have to fulfil. We regret our space will not permit us to pass in review the various other remedial agents advocated by the author. His views in reference to oil of turpentine, opium and astringents seem in the main correct. We think he might have dwelt with advantage at greater length on the complications so often to be encountered in typhoid fever. He certainly entertains a most profound respect for the opinions of Dr. Wood, whom he seems to consider the grand master, but he could have profitably extended his enquiries further and learned what others had done and are doing in the same field elsewhere. In a treatise like this we should expect that the labors of those who have been amongst the most distinguished of our profession, and whose opportunities for observation were most extensive, should not have been ignored.

This disease is one of those most common in the practice of the profession at the other side of the Atlantic, and one to which the attention of the profession in Britain, Ireland and France has been for many years most unremittingly directed; how strange then that a work specially devoted to this subject should be limited in the materials of its construction to a sphere of observation confessedly narrow and comparatively sterile! For the very accurately detailed anatomical lesions of the fourth chapter we are more indebted to the French School than to Dr. Wood, the object of our author's professional idolatry. Still, though we may not find this book altogether faultless, and in this it but partakes of what is incidental to all human productions, yet on the whole it is a practical and truthful volume—evidently written by one who loves his profession and has a practical knowledge of the subject. It is a book well calculated for the student, who can at once enter upon the study of the disease without having his mind confused by those learned yet unprofitable speculations that serve so frequently as a preface to works professing to treat of typhoid fever.

We acknowledge the receipt of the following books from W. B. Keen, 148 Lake street, and, excepting one already referred to, shall notice them more fully in next No. of the Journal:

The Action of Medicines in the System; or, "On the Mode in which Therapeutic Agents introduced into the Stomach produce their peculiar effects on the Animal Economy." Being the Prize Essay to which the Medical Society of London awarded the Fothergillian Gold Medal for 1852. By Frederick William Headland, M.D., B.A., F.L.S., Licentiate of the Royal College of Physicians, etc., etc. Third edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. 1859.

Alcohol: Its Place and Power. By James Miller, Professor of Surgery in the University of Edinburgh, Surgeon in Ordinary to the Queen for Scotland, etc., etc. From the nineteenth Glasgow edition. Philadelphia: Lindsay & Blakiston. 1859.

The Use and Abuse of Tobacco. By John Lizars, late Professor of Surgery to the Royal College of Surgeons, and lately Senior Operating Surgeon to the Royal Infirmary of Edinburgh. From the eighth Edinburgh edition. Philadelphia: Lindsay & Blakiston. 1859.

The Physician's Visiting List, Diary, and Book of Engagements, for 1860. Philadelphia: Lindsay & Blakiston.

THE DENTAL COSMOS.

We have received the first number of *The Dental Cosmos*, published by Jones & White, of Philadelphia, and edited by J. D. White, M.D., D.D.S., J. H. McQuillen, D.D.S., and Geo. J. Zeiglen, M.D.

The "*Cosmos*" takes the place of the "*Dental News Letter*," (quarterly,) and is to be a monthly publication; each number contains fifty-six pages. It takes a first rank among dental publications.

EDITORIAL.

NOTES OF SURGICAL OPERATIONS.

Under this head we propose to give from time to time, each month, when our space allows, a brief summary of the most

interesting surgical cases coming under our observation during the month, with remarks and references to other similar cases heretofore observed. We are induced to offer these notices to our readers from the belief that the facts thus embodied will be interesting and valuable, and that many of these, for want of such notice, would be lost to science; and further, from the belief that the extent of the field for surgical observation in this city is but imperfectly appreciated. The operations of the lumber region, of the commerce of the upper lakes, of the numerous railroads centering at Chicago, of the manufactures of the city and vicinity,—involve a number of accidents as great, perhaps, as are to be met with in any other city of America or Europe, New York alone excepted; while patients with chronic surgical diseases resort hither, to some extent, for advice from five large States and two Territories, embracing a population of many millions.

It is our wish to make this field of observation available for purposes of instruction, for the improvement of the profession, and for the advancement of science to as great a degree as possible. This can only be done by a brief record of the cases as they present themselves, reserving their use in a more permanent form to another occasion.

1. *Foreign Body in the Urinary Bladder.*

We have recently removed a short pencil of plumbago and wood from the bladder of a man somewhat advanced in years, by the lateral operation of lithotomy. He is out of danger. This is our seventeenth operation without accident.

2. *Extirpation of the Globe of the Eye for Cancer.*

This operation was lately performed on a young child, four years old, for cancer of about one year's growth. The capsule of the globe was unaffected, and was left, which renders the operation much less serious than when it is necessary to remove more of the contents of the orbit. This child suffered no severe symptoms after the operation; her general health and the use of the sound eye were, indeed, improved. Many ophthalmic surgeons, in view of the rapid return of the disease,

condemn the operation. Walton, in his recent valuable work on the surgery of the eye, leans to this view. However unfavorable the result in this respect may be, it can scarcely be more so than the natural course of the disease. We had recently occasion to examine with Dr. Holmes a case in which both eyes were in the early stage of cancer. It was about four months since, and, at the present time, the disease is near its usual fatal termination.

3. *Trephining for Epilepsy and Insanity.*

This operation was performed on a man, thirty years of age, affected with epilepsy and some mental derangement for about four months. The point chosen was the left side of the occiput below the protuberance, the seat of a tumor which had existed for many years, and caused an absorption of the bone and a roughening of its surface. The two tables at the point of the operation were found consolidated and of an ivory hardness, and the skull of but half its natural thickness. The dura mater was vascular and adherent to the pia mater. The patient, who had been under the advice of Dr. Chambers, of Charleston, Coles Co., Ill., returned home three weeks after the operation, very quiet, and much improved in his health. If kept from the exciting causes of insanity, there can be little doubt of his entire recovery.

We have notes of five other cases in which this operation was performed for epilepsy, accompanied by more or less alteration of the mental faculties.

The first of these was that of a young man, John Ladrigan, cut upon the head at two points by an axe in the forests of Wisconsin. One wound extended from the median line, at the junction of the coronal and sagittal sutures, to the left side three inches. The edge of the axe penetrated the substance of the brain deeply, portions of which escaped. The other cut, also on the left side, followed the line of junction of the parietal and occipital bones, and was as deep and as long as the other. At each a large piece of bone was partially separated, one edge passing upon the brain, and the other rising above the surface of the cranium.

This man stated that he had been left as in a hopeless condition by the physicians who were called to see him, but recovered with the wounds in the condition we have mentioned, the right superior and inferior members being affected with paralysis and contraction. He was also subject to very frequent and severe paroxysms of epilepsy, which occurred sometimes daily.

This man was operated on before the class of Rush Medical College.

The whole of the displaced fragment of bone at the seat of the anterior wound was removed by three applications of the crown of the trephine. He recovered perfectly; had but one slight epileptic paroxysm afterwards, and gradually recovered considerable use of the members. No operation was performed on the posterior wound.

The second case was that of a young man from Kendall Co., Illinois. He received a blow above the ear, which fractured and depressed the skull without dividing the scalp. No operation was performed at the time, and he recovered, as was supposed. Six months afterwards he was seized with an epileptic fit. Three months afterwards, another occurred, and then one every month. One year after the injury, we removed the depressed portion with the trephine. He recovered, and the epileptic paroxysms recurred at lengthening intervals, until, at the last notice, six months had elapsed without a return.

The third case was that of a young man, kicked by a horse above the ear, fracture and depression being produced. Concussion and insensibility were the immediate results; after recovering from which, he remained insane, or nearly so. About four weeks after the injury, he was admitted into the wards of the so-called Mercy Hospital, where I used the trephine. Removing the depressed portions of bone gave immediate relief.

The fourth case was a man of fifty years, who, eleven years previously, had a fracture with depression in the temporal region. This gave rise for several years to no perceptible inconvenience. At length he began to be affected with giddiness and loss of consciousness, which, by degrees, became more fre-

quent, until the severer forms of epilepsy were developed. The mind was also affected by dementia to a degree which disqualified him for business. Removing the depressed pieces of bone gave great relief, and one year after the operation he was steadily improving.

The fifth case was not so favorable. A lad, about sixteen years old, came for advice in regard to severe epileptic attacks which had continued for several years. His friends stated that when an infant he had received a blow on the left superior part of the os frontis. On examining this part of the head, a depression was perceived, which, however, was soft and easily compressible. Although no bony surface could be felt at this point, yet the statement of friends of the patient that the blow had produced a depression, induced me to apply the trephine upon its margin. It was found, however, that the bone at that point was entirely absorbed; that surrounding it was in a condition of hypertrophy, very spongy and vascular, and three times its natural thickness. The soft parts presented this appearance in the point where the bone was deficient of venous erectile tissue.

In this case no benefit appeared to result from the operation.

From the four preceding, the inference is, I think, deducible, that leaving depressed pieces of cranium when there is neither wound of the scalp nor symptoms of compression of the brain, as is advised by most surgical writers, is attended by dangers not usually suspected, and that it is better, in all such cases, to raise up the depressed portions at once.

4. *Reduction of Dislocations of the Hip by Manipulation.*

A case of dislocation of the hip into the ischiatic notch came under our care, Friday, Sept. 17, which was readily reduced by following exactly the direction of Reid. It is the first time we have succeeded by this plan. The only other case of a similar kind in which we have attempted it was a dislocation on the dorsum of the ilium of six weeks' standing. Bearing in mind the fracture of the cervix femoris, said to have been produced by too forcible attempts of this kind by a surgeon of the N. Y. Hospital, we took care not to use too great force.

We seize the occasion, however, to mention some cases of dislocation into the thyroid foramen, reduced without pulleys or other mechanical power. The first of these occurred several years since, at Michigan City, Indiana. Attempts had already been made by a surgeon, who tried the pulleys and Jarvis' adjuster without success. We applied the pulleys, but the force deemed as much as could safely be used was insufficient. We then wound a stick of wood with a piece of quilted stuff, to about six inches in diameter, and having it pressed by an assistant against the perineum and firmly held between the thighs, we seized the ankles, and, the knees being straight, carried the two members towards and in a manner tending to cross each other, using the piece of wood as a fulcrum and the members as levers. The dislocation was readily reduced.

Since then two other cases of the same accident have been treated in the same manner with success. In one the patient was laboring at the time of reduction under the effect of shock from falling from a height. The bed-post was surrounded by a pillow, the patient drawn down so as to fetch this against the perineum, and the same manipulation used as before. The force required in this case was not great. In all these cases, except the first, the patients were placed fully under the effects of chloroform.

Judging from these, and a case in which we recently reduced a dislocation of the shoulder without the aid of assistants or mechanical means, it seems doubtful whether the force of the surgeon skilfully applied is not, with the aid of chloroform, sufficient to reduce any dislocation whose reduction ought to be attempted.

PROSPECTUS OF THE CHICAGO MEDICAL JOURNAL FOR 1860.

This Journal will be continued in its present size and form. It will embrace—

1. *Original Articles*, of value; communications from former contributors, and others are earnestly solicited.

2. *Book Notices*, embracing such mention of all important

works as will enable our readers to form a correct estimate of the value of each.

3. *Selections* of interest from American and foreign journals.

4. *Editorial* on subjects demanding notice.

5. *Miscellaneous Medical Intelligence.*

It will be the object of the editors to make the Journal valuable as a scientific and practical work, rather than a medium for discussion of medical politics.

We must here invite the attention of our subscribers to the importance of remitting our dues promptly. While a large number have already complied with our terms, there are, we regret to say, still many, well known to us as honorable and responsible gentlemen, who remain indebted to the Journal for one or two year's subscription. We respectfully and urgently solicit of these their immediate attention to this subject.

Terms, $2 per annum, payable in advance; if not paid within three months from the commencement of the year (April 1, 1860), the price will be $3.

The Annual Course of Lectures in Rush Medical College will commence on the first Monday of November, 1859.

The Surgical Clinic of the College will be held on Saturday afternoon of each week at the College.

DIED,

On Saturday, Aug. 20th, at Amboy, Lee county, Ill., Harmon Wasson, M.D., graduate of Rush Medical College, of the class of 1849.

THIRTEENTH ANNOUNCEMENT OF LECTURES OF

STARLING MEDICAL COLLEGE,

FOR THE SESSION OF 1859-60.

COLUMBUS, OHIO.

The next session of Starling Medical College will commence on Wednesday, October 20, 1859, and will be continued without interruption until the 1st of March.

The Dissecting Rooms for the study of practical Anatomy, and the Hospital for Clinical Instruction, will be opened from the commencement of October.

The Museum of the Institution has now been made very attractive by the late receipts from France and Germany.

The College building now presents a fine appearance, the east wing having been entirely completed during the past summer.

FACULTY.

S. M. SMITH, M.D.,
Professor of Theory and Practice.

FRANCIS CARTER, M.D.,
Professor of Obstetrics, and Diseases of Women and Children.

J. W. HAMILTON, M.D.,
Professor of Surgery.

JOHN DAWSON, M.D.,
Professor of General and Special Anatomy and Physiology, and Dean.

S. LOVING, M.D.,
Professor of Materia Medica, Therapeutics and Medical Jurisprudence.

THEO. G. WORMLEY, M.D.,
Professor of Chemistry.

R. N. BARR, M.D.,
Demonstrator of Anatomy.

FEES.

Tickets of all the Professors, - - - - - -	$60 00
Matriculation Ticket, paid but once, - - - - -	5 00
Graduation Fee, - - - - - - - - - -	20 00
Ticket for the privilege of the Dissecting Room, including the services of the Demonstrator, - - - - -	8 00

Subjects for dissection in the building, furnished at a moderate expense, on application to the Demonstrator of Anatomy, *and in no other way.*

There are two extensive Bookstores in Columbus, at which Medical works in great variety are sold at very low rates. Surgical, Obstetrical and Dissecting instruments are readily obtained.

All letters of inquiry will receive prompt attention if addressed to any member of the Faculty, or to

Sept., 1859, 2i. JOHN DAWSON, *Dean.*

THE CHICAGO

MEDICAL JOURNAL.

VOL. II. NOVEMBER, 1859. No. 11.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

A CASE OF COMPOUND PREGNANCY.

REPORTED BY DR. M. STAHL, OF HARTFORD CITY, IND.

Among the rare cases of obstetrics is the following, which occurred four miles from this place, to which I was called, in consultation with Dr. Clouser. Mrs. H., a respectable lady, was in her third utero-gestation, and enjoying her usual good health, when, on the 13th day of June, after a little more than ordinary exercise, she was taken sick. Natural labor pains came on, and in eight hours from the commencement of labor, she was delivered of a male child, weighing only three pounds. The nails, hair, adipose matter and muscular system were developed as at full term. The placenta and membranes immediately preceded the birth of the infant.

One child and secundines were now expelled, but the prominence of the abdomen being only partially reduced, suspicions were entertained of another fœtus in utero. Expecting pains soon to recur for the expulsion of the second fœtus, but being disappointed in this, an examination per vaginam was made, and the head of another fœtus could be pretty distinctly felt.

The os uteri did not appear soft and relaxing, but rather disposed to contract. There was some hemorrhage, but not alarming, as is sometimes the case in placenta prævia; still no labor pains recurred.

It being now about four hours after the delivery of the first child, and nothing but external means having been employed to bring on labor pains, we now gave a few doses of the vinum ergotæ, with a view of producing pains for the expulsion of the second fœtus, or to check the hemorrhage.

The second indication was sufficiently met, the first was not. I remained with the woman until evening, the child being born early in the morning. The woman doing well, but no pain. Dr. Clouser visited her next day; found her comfortable. She gathered strength rapidly; was up in a few days, and in two weeks, was able to do her work *as if all was over.*

She did not express any great anxiety of mind as to her condition, expecting in a few days to be delivered of another living child, for she was sensible of its motions in utero. Forty-eight days after the first child was born, on the first day of August, she was taken sick, and speedily delivered of a *fine*, *healthy*, *female child*, weighing about eight pounds; the mother kindly recovering and nursing both children.

She knew nothing definite as to the time of conception, for her menses had not been established since her second accouchement. Each fœtus had its placenta, and enveloped in separate membranes. If both were fecundated at the same time, I think the first was expelled before term; but from its proportionate development, and the descent of the testes into the scrotum, it must have been at least eight months old when parturition took place. This would give to the second eighteen days over the usual term of gestation. More depends upon the degree of perfection which the fœtal organs have attained for external existence than upon the period of pregnancy.

The children remain healthy; the second is still the largest. They are now over two years of age, having been born in 1857.

ARTICLE II.

BELLADONNA IN PREVENTING THE SECRETION OF MILK, AND IN MAMMARY ABSCESS.

(Read before the Aurora City Medical Association, at Aurora, Ill., Oct. 3, 1859.)

BY A. HARD, M. D.

There has been much said of late of the virtues of belladonna in preventing and arresting the secretion of milk; and having, with others, labored under the inconvenience of possessing no reliable remedy to fulfil such indications, I resolved to test its virtues; and I propose to give the result of its use in six cases, in which I have endeavored to give it a fair trial.

In the first three it was desirable to prevent the secretion of milk in one breast (from the entire want of development of the nipple) without interfering with the other. All three patients had previously suffered from mammary abscesses, and they looked forward to their approaching accouchment with "fear and trembling." Immediately after delivery I ordered the following:

℞ Ext. belladonna, ℈ij.
Aqua font., ℥ij.
Misce.

With this solution bathe the *one* breast every four hours, until the flow of milk is established in the other; then apply less frequently, but continue its use a week longer.

In one patient, there was no milk secreted in the breast thus treated, while the other breast afforded the usual amount and appeared unaffected. In the other two cases there was a little milk secreted, but not sufficient to distend the gland so as to produce inconvenience; while the opposite breasts, like that of the first case, performed their functions unimpaired The fourth was a case of premature delivery at the sixth month, as the result of placenta prævia. The solution of belladonna was applied to both breasts. But little milk was secreted, which was soon absorbed.

The fifth was a case of abortion. The belladonna was not applied until the breasts became distended and painful. I

ordered that the milk be drawn with a breast pump once; then applied the belladonna and had no further trouble.

In the last case, a large abscess had formed in one breast, which was discharging, and extensive swelling and inflammation existed in the other, at the time I was called. The patient had been a great sufferer for four weeks, both from the "cold water treatment" and the mammary inflammation. I applied the belladonna as in the other cases; also, warm fomentations; had the bowels moved by sulph. magnesia, and ordered the following:

℞ Sulph. quinine, grs. 15.
Pulv. opii, " 2.
Misce.

Div. in chart. No. 4. Dose, one every three hours.

Under this treatment suppuration was prevented, the inflammation was subdued, and convalescence soon followed. There was but little constitutional effect of belladonna perceptible. In two cases, the pupils of the eyes were a little dilated; the children were not effected by it. However, I took the precaution to guard against its inhalation either by the mother or child.

If belladonna proves as useful in the hands of others as it has in mine, in these unpleasant complications consequent upon child-bearing, a vast amount of pain and suffering will be mitigated, if not entirely prevented. I would call the attention of the association particularly, to its application to one breast, leaving the other undisturbed.

ARTICLE III.

REPORT OF CASES IN OPHTHALMIC PRACTICE.

BY E. L. HOLMES, M.D., OF CHICAGO.

CONGENITAL TUMOR ON THE CORNEA AND SCLEROTICA.

A young man, twenty-one years of age, in good health, called upon me regarding a singular congenital tumor, situated near the horizontal median line of the right eye, one half

resting on the external portion of cornea and the other half on the sclerotica. The growth was of a yellowish white color, like a half-ripe cherry, oval in form, half an inch long, a quarter wide, and projecting three-eighths of an inch above the surface of the eye. When the lids were closed, the tumor passed under the upper lid, and raised it to such an extent from the lower that the edges of the lids were not in apposition. The tumor possessed so little sensibility, that it could be grasped firmly between the thumb and finger without producing pain, by which means it was found to be closely attached to the cornea, but movable over the sclerotica. There was a slight strabismus, convergent with so much dimness of vision, that the eye was almost entirely useless. Still the patient experienced scarcely any inconvenience from the tumor, since he had become accustomed to its existence, and enjoyed excellent vision in the other eye. The aspect of the eye was very unpleasant, for which reason alone the patient wished the tumor removed.

The operation was exceedingly simple. After chloroform had been administered, the tumor was seized with a pair of small-toothed forceps as near the globe as possible, and removed by paring it from its seat with a small bistoury, leaving the walls of the eye of their normal thickness. Although the scleral portion of the tumor appeared somewhat movable, it was found impossible to *dissect* it from its bed. It was pared from the sclerotica as from the cornea, care being taken to leave the surface of the whole wound convex—uniform with that of the eye.

The wound healed, with scarcely a symptom of inflammation; —not a trace of it appeared on the healthy portion of the cornea. A few granulations formed in the centre of the wound, which were wholly removed by two or three applications of nitrate of silver. In three weeks cicatrization was complete, the two lateral hemispheres of the eye being perfectly symmetrical in form. As might have been anticipated, the cornea presented a dense opacity at the seat of the tumor; the portion of the cicatrix upon the sclerotica, however, is much less perceptible.

Although the operation was performed principally to satisfy the vanity of the patient, it has proved to be of decided advan-

tage to him. The strabismus has entirely disappeared, and vision in this eye has been constantly improving since the removal of the tumor,—a result, doubtless, to be explained by the fact, that images of objects are now formed in both eyes on corresponding portions of the retinæ.

The tumor, which resembled, in some respects, the small growths occasionally seen upon the sclerotica (pinguicula), was probably a lipoma, a full description of which can be found in the works of Desmarres and other authors.

I am indebted to Drs. Freer and Hunt for a microscopical examination of the tumor, which they found to be of a fibrous and fatty structure.

ACUTE IRITIS, WITH EXTRAVASATION OF BLOOD INTO THE INTERIOR CHAMBER.

A gentleman, about fifty years of age, was attacked with inflammation of the right eye. It was not till the fourth day that he was unable to attend to his usual business, when he sought the advice of his physician, Dr. Max Myers, of this city, who found the case of some interest, and kindly favored me with an opportunity of observing the disease through its course.

At my first visit (May 3), the eye presented the following appearances: the lids were considerably swollen; the conjunctiva of the globe extensively chemosed; the iris discolored and apparently œdematous; the pupil contracted and irregular; the aqueous humor quite turbid. The subjective symptoms were photophobia, dimness of vision, with pain in and around the eye, which last symptom, however, was much less severe than in similar cases that I have seen. The patient had already taken a full dose of pil. hyd., and had been subjected to a rigid diet; extract belladonna and warm fomentations of poppy leaves had been freely applied around the eye. It was, therefore, thought best simply to scarify the chemosed conjunctiva and substitute a solution of sulphate of atropine (gr. ij. aquæ ℥ ss.) for the belladonna.

The following morning (May 4) a singular and somewhat alarming symptom was observed. During the night, evidently while the patient was sleeping upon his right side, blood was

extravasated from the vessels of the iris in such quantities as to fill the temporal portion of the anterior chamber as far as the outer edge of the pupil. In this position it had coagulated and become jet black. In the erect position of the head, this coagulum, instead of settling to the lower portion of the anterior chamber, remained perpendicular. Pus in the anterior chamber (hypopium), as is well known, usually changes its position in the beginning, according to the direction in which the head is held. Although the chemosis had subsided, the eye was, in other respects, in a worse condition than before. The aqueous humor was more turbid; the iris apparently more discolored; vision almost completely destroyed, although the pupil was somewhat dilated; the globe presented that peculiar dark, livid red appearance so often seen in similar cases. The pain was not very severe.

It was thought best to subject the patient more decidedly to the influence of mercury. For this purpose a grain of calomel and an eighth of a grain of opium were given every hour; two leeches were applied to the side of the nose near the angle of the eye. The atropine was continued as previously directed. In the evening I saw the patient again, and found he had been sitting up all day. The lower portion of the anterior chamber was filled with black coagulated blood almost to the centre of the pupil.

The aspect of the eye was certainly peculiar. Full two-thirds of the anterior chamber was filled with these jet-black coagula, the level surface of the second forming a right angle, of course, with the perpendicular surface of the first. The prognosis, as regarded vision, was exceedingly unpromising. No change was made in the treatment except to order a little morphine, if the patient should need it to quiet pain or induce sleep.

The next day (May 5) the symptoms were more favorable. The patient had rested well; the pain was less; and the extravasation had not increased. The calomel was ordered to be taken every three hours when awake. During the three following days, there was a wonderful improvement in the condition of the eye. It was becoming less red and painful, and the pro-

cess of absorption was rapidly taking place. The calomel was now given only three times daily. Continued treatment in other respects as before. On May 13, patient was able to resume, to a certain extent, his business, although apprized of the danger resulting from exposure. At this time the coagula had entirely disappeared; the conjunctiva was only slightly congested; there was no pain. The dimness of vision, of which the patient complained, was probably caused by the dilatation of the pupil and by the turbid condition of the aqueous humor.

From this time there was a constant improvement in the appearance of the eye and in vision. The pupil resumed its normal size and movements, as soon as the atropine was omitted. In a few weeks the patient was able to perform all the duties of his profession without the least difficulty. The cure was perfect.

The case is of peculiar interest, not only as showing to what extent the eye can suffer from inflammation and yet recover, but also as being an example of extensive extravasation of blood into the anterior chamber in iritis. A small quantity of blood *with* pus is not unusual in this disease; but such large coagula without the least apparent trace of pus is quite rare.

(TO BE CONTINUED).

ARTICLE IV.

REPORT OF FIVE CASES OF EMPYEMA.

BY H. NOBLE, M.D., OF HEYWORTH, ILL.

Mr. President and Gentlemen:

At the time I was directed by the President to furnish and read a paper to the Society, I was treating a case of empyema, in which I was very much interested, and having my attention at that time drawn especially to that disease, I shall make it the subject of the following paper.

Empyema is a disease or consequence of disease of not very frequent occurrence in this country. (I speak from observation only).

During a practice of fourteen years, I have seen five cases only; and from inquiry made by me of my friends, I learn that it is at least as seldom met with by the most of them as it has been with me.

Dr. Thompson, in his article on Empyema, in the *Cyclopedia of Practical Medicine*, gives a table furnished by Dr. Davies, containing ten cases, from which I infer that the number of cases occurring to those celebrated physicians were not numerous.

This, however, does not detract from the interest physicians should feel in a disease, every case of which is of vital importance to the patient. There is, perhaps, no condition of the system produced by disease more completely hopeless without efficient aid than the one under consideration. Although the books mention cases which were cured by absorption, we can only expect to meet such cases like angel visits—most welcome but most rare.

Empyema is a consequence or result of a very serious disease, namely, inflammation of the pleura. The occurrence of effusion is not evidence of the subsidence of the inflammation; although, so far as I have observed, the inflammatory action has in each case been materially modified by it, requiring the subsequent treatment to be directed not so much to the pleuritis as the effusion.

Notwithstanding the unfavorable condition of the system in which empyema occurs—namely, a pretty general inflammation of the pleural cavity—all the cases are not necessarily fatal, a fair proportion recovering after an operation. For instance, Dr. Davies, in his table, given by Dr. Thompson, reports ten operations, of which eight were successful. Dr. Bell says the term "successful" is too often used by surgeons to designate the operations that have been regularly and completely performed without the patient sinking under them. Of the applicability of that remark to Dr. Davies' cases I know nothing, but as to the cases which I shall report, you can judge for yourselves.

The first case I saw of empyema was that of John Munson, 10 years of age, who was attacked with pleuritis in the spring

of 1838. The patient was not healthy, having been troubled with asthma from infancy. In the third week of his disease effusion took place in his left side. Immediately after the occurrence of the effusion, the inflammatory symptoms subsided; the pulse, which had been from 120 to 140, fell to 90 or 98, and the system required sustaining treatment. The side increased in size, and in a few days the intercostal spaces were bulged outward.

About the tenth day the heart pulsated on the right of the sternum, and by the fifteenth day there was a distinct pointing between the sixth and seventh ribs. An opening was made, and three half pints of pus discharged at once, after which there was discharged daily half a gill for two weeks. The discharge gradually diminished, and at the end of ten months entirely ceased and the opening closed. The side is considerably collapsed, but the lung admits air, but not in quantity equal to the other. The heart beats on the left side again, and the patient enjoys good health, except the asthmatical difficulty, which does not appear to have been modified by the disease.

The treatment after the operation was quinine, in moderate doses, muriated tincture of iron and iodide of potassium, mineral acids, etc. The diet was of the most nourishing kind.

The second case I saw was on the 1st of February, 1849, a son of Mr. Nickerson, 14 months old. Had effusion when I first saw it; the side, which was the right, being considerably enlarged, and unable to breathe unless the shoulders were elevated. The intercostal spaces protruded and the breast beat exterior to the left nipple.

I operated by making an opening between the sixth and seventh ribs, and evacuated two teacupfuls of pus. The relief was immediate, the little sufferer being asleep in thirty minutes.

This child was nursing at the time and took but little food for five or six days, after which it took new milk, soup, etc. Its medicine was nitric acid diluted and sweetened.

The discharge continued two months when it ceased, and the opening closed. The side is natural. The lung takes air equal to the other, and the boy is now large and healthy.

The third case I saw in 1849. The left side was greatly

enlarged when I was called; breathing much labored; heart beating on right side of sternum. The father objected to an operation, and the boy died in two days. In this case the matter was admitted into the trachea, and was ejected in large quantities with great violence, some being thrown entirely across the room. Death occurred in a few minutes after the matter broke into the windpipe.

The fourth case was Mr. Scott, who, in 18—, was attacked with pneumonia, and received the ordinary treatment for that disease. He was freely bled early in his sickness.

About the twelfth day his side (the left) was discovered to be enlarged, and on the following day his heart beat on the right side of the sternum. On the third day after the enlargement was noticed, the dyspnœa was great, and a consultation was agreed upon for the next day, but the patient died before the time arrived.

This patient died from compression of the lungs, the accumulation being so great that respiration was rendered impracticable.

The fifth case was seen first on 22d November, 1858. The patient was attacked with pleurisy in the left side on the evening of the 21st, and I found him on the following morning suffering extreme pain inside, increased by breathing; cough troublesome, but difficult on account of the pain; pulse 120, full, but easily compressible. The bowels had been evacuated the previous day with sulph. mag. I gave calomel, ipecac., tartar and morphine, and applied sinapisms to the side.

Under this treatment he improved, and the third day I left him convalescent. In two days more I found him suffering with fever, little or no pain in his side, pulse 100 and small, tongue glossy, and tip and edges red. In short, he lay eight weeks with typhoid fever; after which, he got up and walked about the house, but did not get well. His pulse during this time was about 80, soft and full.

This condition lasted about four weeks, when he was taken with a chill, which was followed by fever and pain in left side. This pain was persistent, and was treated with blisters, nauseants and anodynes. Quinine was tried, but aggravated the symptoms.

In four weeks from the chill, the first symptoms of effusion were noticed, which was œdema of the left side and occlusion of the lower part of the left lung from the air.

In two days more the heart was observed to beat under the sternum, and in two days afterwards it beat on the right side of the sternum.

The air now scarcely penetrated the upper portion of the lung, and a careful measurement showed the *right* side to be nearly half an inch the largest, although the effusion was on the left. As the effusion increased the air was prevented from penetrating the lower part of the *right* lung, and the heart was crowded farther to the right side, until it beat under the outside edge of the right nipple, which was the farthest point of deflection from its natural position.

During the whole continuance of the disease the breathing was *not* labored nor hurried, but easy and almost natural. The right side also continued the largest.

I operated on Sunday, the 1st of May, 1859, and discharged a pint and a half of pus at two o'clock p.m., and again removed one pint at ten o'clock same night. One pint was discharged daily afterward, until the accumulation was removed, which amounted to six quarts by estimation, after which about one fourth of a pint was discharged daily for four or five weeks; then the discharge gradually diminished, and changed from pus to serum, and in about eight weeks from the operation ceased entirely and the opening healed.

The medical treatment this patient received was quinine, iodide of potassium, hypophosphite of lime and soda, and diet of the most nourishing kind.

The patient is now enjoying excellent health. The left lung is permeable to the air in its whole extent, and he bears exercise without any difficulty.

I attribute the complete success which attended this operation to two causes: First, to the opening in his side, which was *valvular* to such a degree that the pus would not flow through it at any time, having to pass a tube every time the matter was removed. This prevented the air from entering the pleural cavity except when the tube was used, at which time air always

passed both in and out of the side. Now, my own opinion is this, that the air should be as much as possible excluded from the pleural cavity, because it adds to the irritation and consequently to the danger of the patient, and necessarily prolongs the discharge; but that it increases the danger to the extent generally taught I do not think. The first and second cases both admitted the air freely, and after a few weeks the air passed freely in first case at all times, if the position of the person enlarged or compressed the chest, notwithstanding which the the case terminated favorably, although not so soon as the fifth case.

The second cause to which I attribute the good success of the fifth case, and it bears equally on all the cases operated on, is the system of diet. No pains were spared to nourish the patient with food, which was given in considerable variety, no meal being made of one course. Pure wine from the native grape was given liberally, and new milk was also taken regularly and freely.

To sum up, I would recommend that the opening be made so valvular, if possible, that the accumulated fluid would not escape without the insertion of a tube. That the fluid be discharged a little at a time, never withdrawing more than enough to remove all tension at the first operation. That the vitality of the patient be sustained by all possible means, especially by nutritious diet.

By this means I have succeeded in restoring the cases reported without their assuming a chronic form, which would require local applications to stimulate and charge the secretory action of the pleura.

Should I meet such a case, I should not fail to follow the example and direction of Dr. Brainard, to inject the pleural cavity with iodine. This, to say the least, appears like a heroic operation; but after his reasoning and experience, I should not hesitate to resort to it in any case in which it was not contra-indicated by lesions of structure which would render the case hopeless independent of the pleura effusion.

NOTE BY THE EDITOR.

Our thanks are due to the Clinton Co. Society for the above valuable paper. In the case of empyema, treated by injections of iodine, as reported by us in a former number of this Journal, an error occurred which it is important to correct. The case was of five years instead of five months' standing. We have now under treatment at the Chicago Hospital, a case of empyema of ten months' standing. It was the result of a stab. We throw a solution of one grain of iodine, with thrice the quantity of iodide of potassium to the ounce of distilled water, into the opening twice a week.

This method of treatment is not new or peculiar to ourselves, but has been used successfully by Boinet and others in France several years since.

ARTICLE V.

CASE OF GLANDULAR TUMOR OF NECK.

SUCCESSFUL OPERATION.

BY JAMES CODY, M.D., OF WATERTOWN, WIS.

July 14th, 1859.—Mr. Truman Gates, aged 34 years, of nervous sanguine temperament; has always enjoyed good health. Five years ago he first noticed a small round tumor, just under the left jaw-bone, midway between the angle of the jaw and symphysis. From that time it has steadily increased, without pain or any other inconvenience, until four months since, when it was noticed to increase rapidly, causing much inconvenience from its mechanical pressure on the surrounding parts.

Present condition and appearance of patient.—The left side of the neck presents a large globular swelling, as large or larger than the fist. It commences half an inch below the ear, and extends nearly an inch beyond and to the right side of the symphysis; its upper edge rests on the jaw-bone; its lower edge nearly describes a semi-circle; covering the side of the neck, midway to the clavicle; pressing the larynx and upper

part of the trachea to the right of the median line full half an inch or more; to the left it apparently pressed the sterno-mastoid muscle out or rather to the left.

On passing the finger into the mouth and under the tongue, the tumor can easily be felt through the floor of the mouth and pressing against the root of the tongue. He complains of a difficulty of swallowing; his speech is affected; the voice has a peculiar indescribable sound; some pain in head; face somewhat flushed, and a number of turgid veins are seen passing over the swelling. He says that the pressure of the tumor gives him very unpleasant feelings, and wishes for its removal, as he is conscious it will soon terminate his existence.

The operation was performed in the following manner: Having administered chloroform, an incision was made, extending over the long diameter of the swelling, commencing, perhaps, one inch below the angle of the jaw, and carrying it seven inches, or about opposite cricoid cartilage. This incision was carried through the integument and down to the platysma-myoides muscle. This muscle, with the deep cervical fascia, was now cut through, when the tumor was brought into view. The rest of the dissection was for the most part conducted with the fingers and handle of the scalpel, only occasionally using the edge of the knife to divide bands of cellular tissue. The tumor dipped deep down by the side of the larynx; also mounted up by the inner side of the jaw-bone, being most prominent opposite the molar teeth.

After the tumor was turned out, it was found to be attached by a pedicle half an inch or more in circumference. For fear and to avoid hemorrhage, the pedicle was ligated and the tumor removed.

The tumor was bi-lobed or kidney-shaped, dense and hard to the feel, except one spot, which was soft and seemed to contain a fluid. It measured nine inches in its longest diameter and seven and three-fourths in circumference.

In a few hours after the operation he became very restless; some muscular twitching was noticed; the neck and left side of the face became swollen, but not painful; pulse considerably accelerated. A dose of morphine was administered, and ice

water applied to the swelling; after which he went to sleep, and on waking up felt very comfortable. In the evening one of the sutures was taken out and all the adhesive straps removed. Continued ice water; also gave tart. emet. in solution, quarter of a grain every two hours.

July 15th, 8 a.m. Rested well during night; pulse 90, rather hard; face and neck swollen on left side; continued sol. tart. ant.; apply sol. mur. ammoniæ to swelling; drink, lemonade and cream tartar.

16th, 8 a.m. Spent a comfortable day yesterday; had two dejections; no difficulty in swallowing; voice natural; some discharge from wound; slept well last night; continue mur. ammoniæ; take sol. nit. pot. six gr. every three hours in flaxseed water; urine scanty and high colored.

17th, 8 a.m. Reports himself as comfortable; swelling not decreasing much; ordered flaxseed poultice to face and neck; continue nit. pot., also take cream tartar.

18th, 8 a. m. Is doing well; considerable discharge from wound; continue poultice, etc.

19th. The same as yesterday.

20th. The swelling is fast decreasing; large discharge of pus.

21st, 8 a.m. Swelling decreasing; complains of soreness of throat and difficulty of swallowing; ordered gargle of nit. argent. gr. ij. to ounce of water.

22nd, 8 a.m. Soreness of throat less to-day; continue gargle.

23rd, 8 a.m. The same as yesterday.

24th, 8 a.m. Is not so well to-day; complains of more pain in throat—a sensation of filling up; tongue furred; breath of fetid odour; is to take castor oil ʒij., oil terebinth. ʒi., calc. mag. ℈ij.; after operation and to-night is to take Doveri pulv. et bi-carb. soda, aa. gr. v. every three hours.

25th, 8 a.m. Reports himself as feeling quite well to-day; swallows well; no pain or soreness of throat. He thinks an abscess broke inside the throat last night, as he spat up matter and experienced immediate relief. Cathartic operated three times in the afternoon yesterday. He took but two powders last night; is to suspend medicine; swelling fast decreasing;

wound three-fourths healed; apply simple cerate to wound; flaxseed, mixed up in sal. mur. ammon., to swelling above the wound.

26th, 8 a.m. Considers himself well; swelling nearly all gone.

27th, 8 a.m. Doing well; was about town all day yesterday; starts for home, twenty miles distant, to-day.

27th. Mr. Gates called to-day and reported himself as well. There is no swelling or enlargement whatever of the left side of neck and face; on inspection, no difference of the two sides of the face can be detected.

ARTICLE VI.

DIPHTHERIA.

BY W. GODFREY DYAS, M. D., CHICAGO.

(Continued from page 605.)

The year 1855, in France, proved fruitful in cases of diphtheria. The disease then raged epidemically in that country, and it was observed that its adynamic character had become more marked. Death by asphyxiation, which, in Bretonneau's time, was the rule, now became the exception. Most of the fatal cases terminated by exhaustion. It was also observed that fever became but a secondary element in the disease—many cases proving fatal without it. As it may be instructive to give a case of this kind, we quote one detailed by M. Ramon in the *Gazette des Hopitaux*, September 25, 1855.

"A girl, aged 10 years, was brought to the Infirmerie de Charenton, presenting the following appearances: pearl-like exudations covered the posterior part of pharynx and the tonsils, which were swelled. There was no fever, nor indeed any general symptoms to be noticed. The treatment adopted seems not to have been very active, for nothing internally appears to have been administered excepting barley-water sweetened with honey, and the throat was brushed with honey of roses mixed with alum. Next day the membranous exudation was thicker,

and appeared disposed to be detached from the left tonsil; the exudation was surrounded by a red border, slightly bleeding in points; the breath was not fetid, and the general state was supposed to be good. The same treatment was continued. On the fourth day of the disease, the throat was become nearly free from false membranes. In fact, the local affection presented evidently such a diminution that if it alone were to determine the prognosis, there were grounds to hope the disease would soon completely disappear. There still was no fever, yet the patient became more feeble. During the day she vomited some bile, without having previously had any disturbance of function on the part of the stomach. At the circumference of the nostril of the left side, there appeared a little whitish exudation of about a line in extent from above downwards. On the fifth day of the complaint, the tonsils and pharynx were almost entirely clean. Still no fever, but the child was growing more feeble. Deglutition painful; no appetite. Left nostril, from which there flowed some serum, was narrowed and surrounded by brownish crusts. On the sixth, the patient had a bad night, was restless and enjoyed no sleep; countenance indicated fatigue; pulse small and frequent. Some vomiting of bile. Deglutition painful; urine, thick and scanty. Tongue and throat appeared as they would in scarlatina. Some slight traces still of false membrane on left tonsil and posterior wall of pharynx. In the evening, evidently better; moderate heat of skin; pulse less frequent; tongue and fauces less red. Vomiting not renewed. There yet remained some indistinct appearance of false membrane; deglutition still painful. Chicken broth was given and not rejected by vomiting. No tympanitis, nor abdominal pain; one motion during the day. Seventh day.—Bad night, worse than had been expected; vomiting; skin cold; traits of the countenance altered; pulse small and frequent. In the evening, the left part of the velum palati and tonsil of the same side, as well as the outer wall of the left nasal fossa, were covered with a fresh membranous exudation. The breath is not fetid; skin cold; pulse always small and contracted, but less frequent than in the morning. Abdomen not tense, but is the seat of some undefined uneasi-

ness. (Cauterization of throat with a concentrated solution of nitrate of silver). Eighth day.—Night passed without any rest; excessive debility; cold skin; intellectual faculties retain their integrity; respiration normal; death."

In the sixth volume of the *Gazette Medicale* (1838), there is to be seen a case which, in being free from fever from beginning to end, bears a marked affinity to that just now detailed. It was described as croup, and is the only one of that disease to that date on record wherein could not be detected a single febrile symptom. Cases, unaccompanied by fever, of tubular bronchitis and of pellicular disease of the mucous membrane of the intestines have long been familiar to us; but until M. Ramon placed on record his case of diphtheria without fever, we were unable to predicate universally (in reference to diseases characterized by a deposition of false membrane) that pseudo-membranous exudation, far from being necessarily accompanied by fever, may be deposited on any mucous membrane without the system giving any indication of sensorial or general vascular disturbance. M. Ramon, in laying down the four following propositions, puts on record his views of diphtheria:

1st. Diphtheria is an inflammatory disease, but the inflammation which constitutes the essence of it is allied to a peculiar condition of the system that reveals itself by a coagulation of the products of the inflamed surfaces.

2nd. The concretions that cover the inflamed surface are merely in juxta-position; they are not in union with it, and cannot therefore be confounded with gangrenous products.

3rd. Diphtheria and croup appear to be one and the same disease, the progress of which is at one time ascending—at another descending.

4th. This difference in the mode of progress of croup appears to establish one equally great in the prognosis and treatment. When the disease follows a descending progress, and this he considers as fortunately the more frequent mode, there is reason to expect it will yield to suitable external and internal remedies. If, however, it seizes on the trachea, M. Ramon thinks tracheotomy should be had recourse to. When it commences in the

bronchi and ascends, he thinks then tracheotomy presents but a slender chance of relief.

These opinions, at a future stage of our observations, will engage our attention: we will not now stop to examine them, but pass on to a consideration of the disease as we find it in close relation to others.

It was during this epidemic, so rich in material for observation, that Marechal de Calvi presented his mémoir to the Academie des Sciences. He looked upon the disease as having its essence in the blood; and though the exact nature of the *materies morbi* could not be ascertained, he considered the formation of false membrane as attesting an excess of plasticity of that fluid, which he endeavored to lessen by the administration of alkalies. He, therefore, gave bi-carbonate of soda in a case of this kind, and was surprised to see the effect produced in four hours—the plastic coat of the throat had completely disappeared. The quantity administered was something more than fifteen grains every half hour.

There was nothing new in this treatment. The same was proposed and tried by Mouremans in 1838. The case was diphtheria, though described as croup, and recovered.—*Medical Gazette*, April 13, 1839.

We have hitherto been considering this disease without complication. But the epidemic of 1855 did not confine itself to cases free from other complaints. It complicated scarlatina, pertussis, scurvy, dysentery and typhoid fever.

At the Hopital Saint-Antoine it was observed by M. Oulmont as a complication of typhoid fever. This physician tells us he never saw diphtheria at the above hospital seize on persons in good health or in convalescence. In all cases, it was seen complicating some serious affection, on which it supervened, and hastened its fatal termination. It affected a remarkable predilection for typhoid fever. Of eight cases of diphtheria, six appeared in patients labouring under typhoid fever, one in a man ill of double pneumonia, and one the subject of tubercular peritonitis. It appeared, moreover, at variable periods; generally between the second and fourth week of the fever; very rarely towards its decline. In most cases, it accelerated

the fatal termination, which was the immediate result of asphyxia or of a kind of poisoning. In but two of these cases was there a cure. Typhoid fever, in every instance, was unfavorably influenced by the complication, and the latter developed itself without making its approach in that insidious manner to which authors have called attention. Five patients complained of a little uneasiness of the throat and difficulty of deglutition, with swelling of the cervical glands. This last symptom observed by most writers as almost always constant, was wanting in the other patients. In these it was only by an examination of the throat that the disease could be recognised. Then on the uvula, velum, posterior surface of the pharynx, might be seen irregular plates of a greyish hue, very soft, though adherent. That part of the fauces not covered with diphtheritic patches was of a bright red and swelled, as if there was submucous œdema. The tonsils were enlarged in but half the cases. In the rest they were almost normal, except for some shreds of membrane, and it was in these cases that no swelling of the cervical glands, nor of those immediately below the jaw, could be detected. Once the membrane was developed, it rapidly spread over the fauces, and in some hours the guttural fossæ were lined with it. It did not extend to the nasal fossæ. Sometimes, in about twenty-four hours it would extend to the larynx, and then repeated paroxysms of suffocation, with croupal cough indistinctly marked, would supervene. In two cases there were symptoms of extreme asphyxia. In some, the false membrane seemed to vanish from the uvula, pharynx and tonsils; there was no paroxysm of suffocation; nothing, in short, to indicate the extension of the disease to the respiratory passages; and yet, notwithstanding the apparent decline of local symptoms, there came on rapid sinking, coma and death. In two, who recovered, the false membrane in successive portions became detached, and was carried off in a thick viscid and bloody saliva, leaving the mucous membrane injected and the subjacent parts œdematous. The general symptoms of diphtheria were difficult to disentangle from those of the original complaint—so great was the confusion caused by their mutual involvement. Yet M. Oulmont referred more especially to

diphtheria, the swollen face and the œdema of the side of the neck, which occasionally occurred; the tongue was generally dry and swelled; the mouth clammy, the breath fetid; diarrhœa persisted in all, even in those who recovered; the fever augmented, and the cerebral symptoms of the typhoid affection seemed to augment after the appearance of diphtheria. In all the cases, in which the disease terminated in death, its progress was very rapid. In five, it was of but two days' duration, and twice it terminated fatally by suffocation. In the others, death took place by a gradual sinking that succeeded to great excitement. In those who died, the pseudo-membrane, instead of presenting the smooth, shining and *lardacee* appearance most usually seen, was of a dirty grey, very soft and easily removed from the surface. In two of these subjects, the false membrane was limited to the uvula, tonsils and pharynx. The larynx was perfectly healthy. In two, there were but some shreds in the larynx, and in two others the membrane commencing in the back of the throat extended in a continuous line along the pharynx, larynx and trachea.

M. Oulmont adopted the treatment usually had recourse to. He used nitrate of silver both in substance and solution, and muriatic acid. But the results were not satisfactory. He thought muriatic acid caused a great accumulation of mucus above the larynx with distressing dyspnœa. Being struck with the dull-grey color of the false membrane which resembled the grey pellicle covering ulcers affected with hospital gangrene, and recollecting the satisfactory results obtained from lime juice by some surgeons in such cases, he prescribed it as a local application to the fauces in diphtheria. He directed nitrate of silver or muriatic acid to be used morning and evening, and, in the interval, lime juice. Some died so rapidly as not to give time to apply it. Thus its value could not well be appreciated. However, two, thus treated, got well: one on the twenty-sixth day of fever, the other on the fifth day of double pneumonia.

In the *Gazette Medicale* (1848), there is a case related by Barbier which bears a remarkable resemblance to those given by M. Oulmont. It is described as a case of typhoid fever

complicated with laryngo-bronchial croup. It commenced like influenza with sudden seizure, coryza, etc., and terminated fatally. Though described as croup, judging from the symptoms, it was evidently a case wherein diphtheria supervened. Louis also met a case of typhoid fever similarly complicated.

Contrary to what we might suppose *a priori*, diphtheria, when complicating scarlatina, proved milder than when idiopathic. That eruptive diseases have some modifying power over the disease would seem probable from the records of cases; but that diphtheria could supplant any of the former, we had no reason to infer, knowing how frequently it was noticed in connection with scarlatina.

A paper, however, was presented to the Academy by Velpeau, in the name of M. Vernhes, physician at Beziers, entitled Simples Propositions sur le Croup, wherein under the name of croup is described this epidemic diphtheria. The author having remarked that the department of Herault, which for three years was under the influence of a "medico-croupal constitution" the most intense and fatal, during that time presented not a single case of measles. He concluded from this that these affections were to a certain point similar, and was led to think that in inducing, by artificial means, a general exanthem of the surface, it would be possible to succeed in preventing or arresting in the beginning the development of diphtheritic symptoms. He, in consequence, conceived a method of treatment, consisting in provoking a confluent eruption over the whole body by means of croton oil. He says he has proved that after the appearance of an exanthem, the formation of false membrane, if it had already taken place, was completely arrested. The fact is interesting, but the inference deduced is palpably illogical. To assume that the non-appearance of measles, under the circumstances mentioned, was owing to the presence of a disease similar in nature which, as it were, represented the former in the system, is altogether gratuitous.

While this epidemic was prevailing in France, its seeds appear to have been transmitted to the Crimea, where it broke out amongst the French troops, and appeared most frequently in complication with scurvy and diarrhœa. We are indebted to

M. Haspel, physician to the army of the East, for a most instructive account of the disease. It was particularly during the spring and autumn of 1855 that this disease appeared, complicating advanced cases of scurvy and chronic diarrhœa, especially in feeble persons, whose constitutions had been reduced either by previous or actual disease. Sometimes, localized in the superior part of the pharynx and in the tonsils, it, in the beginning, consisted frequently in but a redness more or less intense, with tumefaction of these organs, which, as well as the velum and uvula, then assumed a covering, in certain points, of pseudo-membranous white and irregular patches. Occasionally it limited itself to this, but most frequently it extended to the air passages and nasal fossæ; at other times, it presented from the commencement superficial ulcerations that were soon covered with membranous exudation. By the oppression, coughing, hoarseness, the seat of pain at the inferior part of the neck or behind the sternum, it was known that the air passages were attacked. The patients soon began to expectorate a purulent fluid, whitish and not coherent, which obstructed the bronchi and rendered respiration difficult. Two of the cases detailed, commencing as simple angina and being consecutively membranous, all at once assumed the character of gangrenous angina, in men affected with scurvy. On dissection, the disease was marked by bright-redness and swelling of the pharynx. Irregular flaps, small in size, of pseudo-membrane covered certain points of the surface of the pharynx, tonsils, velum, sometimes also the larynx and trachea. Beneath, the mucous membrane was red and rough; the epidermis had been removed, and there evidently was erosion of the surface. But on an incision being made into the trachea and bronchi, the abundance of sero-purulent liquid which had accumulated and escaped was particularly striking.

The treatment consisted in vomits. Sometimes the dysphagia was such as to cause rejection of fluids by the nares, even when taken in the smallest quantities. At other times, they acted on the intestinal tube, especially in those who had diarrhœa. Cauterization by muriatic acid, and nitrate of silver was used early in the disease but without effect. This cauterization was often difficult. It left in the throat an intolerable savour, and

was not effected without danger. Besides, it produced violent excitement by the energetic efforts it provoked; and by the excessive elevation of vital manifestation it momentarily roused, exhausted the resources of the system and hastened the fatal termination, especially if, as was the case here, one had to deal with deteriorated constitutions.

Intimately connected with researches on this disease during the epidemic of 1855, a new phenomenon was made known by Bouchut and Empis. Albuminuria was observed to exist in a certain number of children affected with diphtheria. This did not appear in every case of the disease;—it was seen in eleven out of fifteen cases. It was considered to indicate the infectious nature of the disease, resembling, in that respect, purulent infection, which is accompanied by the same alteration of urine. Besides, as its disappearance coincides with the cure of the disease, it was supposed to constitute one of the most valuable signs. In the words of the report read to the Academy in reference to the memoir presented on this subject by Bouchut and Empis, albuminuria, as seen in diphtheria, "may depend on different causes, which it is necessary to seek out in order not to make any premature generalization, and to restrict us to the precise and scrupulous observation of facts. It is known that eruptions of scarlatina may precede or follow malignant angina, croup, ulcerated and gangrenous sore throat. This is the result known from cases of old, to be traced back to the time of the Syriac ulcer, so well described by Aretæus." "In this case, the albuminuria may be referred to scarlatina."

Wherever there is a stasis of the blood, as in croup with asphyxia, pertussis, cholera, affections of the heart, or any condition of the system causing congestion of the kidney, there will also be albuminuria. But in addition, there is supposed to be in diphtheria a special albuminuria depending altogether upon poisoning of the blood, one that seems to ally diphtheria to purulent infection—an albuminuria that is not connected with scarlatina, nor with asphyxia, but which belongs to the nature of the disease itself, and which announces the generalization of the latter. We, at present, content ourselves with stating the fact, but withold our assent to the opinion based on

it by the authors of the paper, who pronounce it the first degree of infection of the humours by the absorption of a special purulent product which poisons the patients and causes them to die so unexpectedly.

The sudden and unexpected death may certainly be owing to the blood being saturated with a poison, but we have no evidence of a special purulent product being absorbed. The mere presence of albuminuria apart from the stasis of the blood is not the only fact that has led MM. Bouchut and Empis to the above conclusion. They assert that both in diphtheria and purulent infection there are, 1st, Alteration of the color of the blood which assumes a bistre tint; 2nd, Nuclei, more or less numerous, of pulmonary apoplexy, like those that precede the development of metastatic abscesses; 3rd, Ecchymoses of purpura on the skin, on the serous membranes and in the viscera. They think that now there is nothing more necessary to establish the connection between these diseases than the presence of visceral abscesses or purulent (metastatic) collections in the serous membranes in addition to the preceding alterations.

"But," they observe, "these abscesses are not so necessary to characterize absorption of pus, and they do not exist in all those who die of purulent infection." In all the children under their care for diphtheria, the urine was analyzed both by heat and nitric acid. When there was albuminuria, the urine contained an enormous quantity of salts, which rendered it muddy and milky-looking at the moment of emission. At first the heat caused the salts to be held in solution; then at a higher degree of heat, there was a precipitation of albumen. Three times the precipitate was remarkably abundant; once it was scarcely apparent, and in the rest of moderate amount.

The epidemic of 1855 was, as we have said, essentially adynamic in character and varied thus considerably from what Bretonneau described, which was more inflammatory and caused death by symptoms of croup, whereas that which now engages our attention destroyed patients as glanders would kill. It was contagious, developing itself slowly and insidiously, marked by prostration and debility, feeble pulse and swelled cervical glands, and existence of false membranes in the nasal fossæ,

pharynx, vulva, sometimes in the larynx, trachea and bronchi. It had no gangrenous odour, was not characterized by difficult breathing, and did not destroy by asphyxia. Tracheotomy was contra-indicated. Cauterization of the surface and tonics were the only means that seemed useful. But under every plan of treatment, the majority of those ill of the disease died.

Bretonneau did not suppose that the disease he described could be propagated through the air, but supposed it was always the result of a kind of inoculation—of a real contact of the morbid products with the mucous membrane. Trousseau was less absolute in opinion. He did not reject the contagion *a distance*, which to-day is generally admitted. Bretonneau considered the descending progress as a characteristic of the disease, but this was contradicted by innumerable facts supplied by the epidemic of 1855. But though contagion could not be doubted, yet epidemic influences were the principal cause of the extension of the disease at that time.

Dr. Adolphe Gubler, as the result of extensive observation during this epidemic, was induced to view diphtheria and gangrenous sore throat as one and the same general disease, with different local manifestations; and thinks that, though one mode of expression may be the more frequent, still it is not rational to define the disease by that alone. That anatomical forms can only serve to mark peculiarities in the species; but, that in order to unite, under one denomination, these severe anginæ, whether diphtheritic, sphacelo-diphtheritic or gangrenous, we should not have regard to any character except a constant one, and designate them as malignant angina. We must here quote Guerin's comments on the above paper, they are so significant, and so much in accordance with our own views. "These reflections of M. Gubler are a still further proof of the struggle which establishes itself amongst all against the excessive predominance given among us to the anatomical element in disease. The general state of the economy claims every day its more considerable share in the physiognomy of disease. Anatomo-pathological materialism led us too far."

Before we take leave of this part of our subject, perhaps it would be well to consider more in detail the claims which the

opinions and practice of Marechal de Calvi and M. Vernhes have to our confidence. We have already stated that the former, viewing the false membrane as the expression of some unknown morbid principle, and which, though itself not constituting the disease, was the immediate result of the first pathological phenomenon, and attested at least an excess of plasticity of the blood. The indication he therefore thought consisted in removing this undue plasticity, and with that view he administered alkaline carbonates; with what result we have already above stated.

Now it is a remarkable fact that during the Crimean campaign, diphtheria was seen in the French camp amongst those who at the time were suffering from scurvy. Surely it will not be said there was an excess of plasticity of their blood; nor will it be maintained there was a want of alkalies in it. We have the testimony of Fremy, Andral, Gavarret, Becquerel, Rodier and Headland, that in the blood of scorbutic patients there is an excess instead of a deficiency of the alkaline salts.

During this epidemic it was observed that diphtheria differed from other specific diseases, such as small-pox, measles and scarlatina, by the frequency of its relapses. This feature alone would discountenance the notion of similarity between it and measles, as advanced by M. Vernhes. The fact that for three years during which the "epidemic constitution" was decidedly diphtheritic in the department of the Herault, and during which there was not, in an extensive district, a single case of measles, is an important fact, and one which we would explain on an altogether different principle from that proposed. Instead of recognising any affinity between diphtheria and measles, we, on the contrary, are disposed to see nothing but opposite relations. These are frequently seen amongst diseases. Small-pox and vaccinia are a proof of the mutual counteraction of morbid processes. Ague is said to be antagonistic of phthisis; and it is alleged that Fouquet of Freiburg has successfully opposed syphilis by revaccination. M. Vernhes has given us a fact and a theory. The first is important and may lead to some practical use; the second is totally unsustained and in opposition to analogy.

During the progress of the epidemic, practitioners avoided the employment of cutaneous revulsives as they became new foci of diphtheritic deposition. There was, however, one situation, we are told, where a breach of surface was not necessarily followed by false membrane, but the contrary was observed; as we learn that benefit ensued from the excision of a tonsil. The case is related by M. Domerc. The patient was a child about five years old, and had previously been ill of whooping cough when seized with diphtheria. One of the tonsils was amputated with the effect of arresting the secretion of false membrane, and subsequently there was no deposition on the denuded surface. The treatment that was at this time usually employed in France consisted in being very sparing of sanguineous evacuations, as the affection became promptly adynamic; all cutaneous revulsives were proscribed; emetics were thought valuable; and alteratives of mercury, alkaline carbonates and chlorate of potash were supposed useful. Local treatment was directed to the fauces, with the view of energetically modifying the diseased surface—calomel, powdered alum, muriatic acid, but especially the nitrate of silver, were used. In fine, besides employing remedies to counteract the morbid principle in the blood, as each based his practice on some theory that involved this notion, restorants were freely administered both in the way of food and medicine—quina, coffee, generous wines, etc. —the employment of which had long to be continued after convalescence.

(TO BE CONTINUED).

BOOK AND PAMPHLET NOTICES.

PHYSICIANS' HAND BOOK OF PRACTICE. 1860. From S. C. Griggs & Co., Lake Street.

This little work is a pocket manual—if such an expression be correct,—and contains all that a physician may need for his memoranda, notes, accounts, etc. It is an improvement on anything of the kind which has fallen under our notice.

An Introduction to Practical Pharmacy. Designed as a Text Book for the Student, and as a Guide for the Physician and Pharmaceutist; with many Formulas and Prescriptions. By Edward Parrish, Principal of the School of Pharmacy, Philadelphia, etc. Philadelphia: Blanchard & Lea. P. 720. From W. B. Keen, Lake Street.

This is the second edition of a work which is already a standard on the subjects of which it treats. This work is not intended to supersede the National Pharmacopœia, but as a necessary supplement. The processes of preparing and dispensing medicine are fully detailed in the 2nd and 5th parts. Directions are given for the preparation of all the new medicines in use; and it appears to contain all the directions necessary to an accomplished pharmaceutist, who has already a sufficient knowledge of chemistry and materia medica. We recommend all physicians who are under the necessity of compounding their own medicines, and all apothecaries, to give it an examination.

The Action of Medicines in the System; or, "On the Mode in which Therapeutic Agents introduced into the Stomach produce their peculiar effects on the Animal Economy." By Frederick William Headland, M.D., B.A., F. L.S., Licentiate of the Royal College of Physicians, etc. etc. Third edition, revised and enlarged.

"On no question, perhaps, have scientific men differed more than on the theory of the action of medicines." Such is the opinion not only of our author but of all connected with medical pursuits. The book now before us, eminently calculated as it is to confer benefit on the science and practice of therapeutics, has already done much to lessen this difference of opinion, by the promulgation of correct principles. It has reached a third edition, which includes some matters not contained in those that preceded it. The arrangement, classification, and strictly logical method adopted; the conclusiveness and simplicity of the experiments in support of views, clear and philosophical; and the accuracy of expression with which these are communicated, —cannot but command attention and excite interest. The arrangement of the heads of the subjects in a number of distinct propositions, dividing each of these into minor propositions, which, taken together, imply the original one, is a method that will not fail to enable the student, by almost imperceptible steps,

to keep pace with the arguments, and ultimately to share the convictions, of the author. Occasionally, he indulges in speculations and hypotheses, but not without having previously warned the reader that he was about to wander from the high-road of ascertained truth, over the ill-defined and indistinct by-paths of conjecture.

In the first chapter, devoted to introductory remarks, he sets forth the great importance and extent of the subject; shows in what manner he proposes to attain clearness and correctness of language and argument in the treatment of the several topics he is about to consider; and explains the scheme and arrangement which he means to follow in the execution of his design.

The second chapter contains a brief review of the opinions of other writers,—gives their classifications as "the best key to the main opinions" of their respective authors, and occasionally (and we must add, successfully) opposes doctrines hitherto unquestioned.

In the third chapter, he states his own opinions as to the *modus operandi* of medicines, and treats of their general modes in ten propositions. These we give in his own words:

PROP. I.

That the great majority of medicines must obtain entry into the blood, or internal fluids of the body, before their action can be manifested.

PROP. II.

That the great majority of medicines are capable of solution in the gastric or intestinal secretions, and pass without material change, by a process of absorption, through the coats of the stomach and intestines, to enter the capillaries of the Portal system of veins.

PROP. III.

That those medicines which are completely insoluble in water, and in the gastric and intestinal juices, cannot gain entrance into the circulation.

PROP. IV.

That some few remedial agents act locally on the mucous surface, either before absorption, or without being absorbed at all. That they are chiefly as follows:

a. Irritant Emetics.

b. Irritant Cathartics.

c. Superficial Stimulants, Sedatives, Astringents.

PROP. V.

That the medicine, when in the blood, must permeate the mass of the circulation, so far as may be required to reach the parts on which it tends to act.

That there are two possible exceptions to this rule:

a. The production of sensation or pain at a distant point.

b. The production of muscular contraction at a distant point.

PROP. VI.

That while in the blood the medicine may undergo changes, which in some cases may, in others may not, affect its influence. That these changes may be—

a. Of Combination.

b. Of Reconstruction.

c. Of Decomposition.

PROP. VII.

That the first class of medicines, called Hæmatics, act while in the blood, which they influence. That their action is permanent.

1. That of these some, called Restoratives, act by supplying, or causing to be supplied, a material wanting; and may remain in the blood.
2. That others, called Catalytics, act so as to counteract a morbid material or process; and must pass out of the body.

PROP. VIII.

That a second class of medicines, called Neurotics, act by passing from the blood to the nerves or nerve-centres, which they influence. That they are transitory in action.

1. That of these some, called Stimulants, act so as to exalt nervous force, in general or in particular.
2. That others, called Narcotics, act so as first to exalt nervous force, and then depress it, and have also special influence on the intellectual part of the brain.
3. That others again, called Sedatives, act so as to depress nervous force, in general or in particular.

PROP. IX.

That a third class of medicines, called Astringents, act by passing from the blood to muscular fibre, which they excite to contraction.

PROP. X.

That a fourth class of medicines, called Eliminatives, act by passing out of the blood through the glands, which they excite to the performance of their functions.

The chief objects for which he designed the fourth chapter are, as he tells us, "to illustrate some general principles of the action of medicines which have been laid down in the propositions, and show in what manner they are applicable to special cases, and to enter into certain details respecting the more important remedies."

We thus see his classification embraces four great groups of medicines, to each of which one of the last four propositions refers. The first group he divides into medicines restoring to the blood a substance natural to this fluid, and not necessarily excreted from it; and into such as are not its natural constituents, and therefore such as sooner or later must be excreted from it. The applicability of the former depends on the absence of a natural substance; that of the latter, on the presence of an unnatural agency. The second group includes nearly all the powerful poisons that act after passage into the blood, and whose peculiar mode of action is in many respects involved in obscurity. The third, less important and less obscure in action, seem to owe their remedial properties both to chemical and vital influences. The fourth form an extensive class, and though their efficacy in the removal of disease, and, to some extent, the manner in which this is exerted, were not unknown to our predecessors, yet the precise method by which, in those instances, causes proved adequate to the production of corresponding effects, was a problem reserved for solution by more recent observers.

Some years ago the opinions entertained by the profession as to the mode of action of medicines might be referred to three different heads. Some maintained medicines were absorbed by an order of vessels that discharged this particular office of absorption, and this only; others, that absorption was effected by the venous system; and others still, that though the action of some substances might be the result of absorption, yet this was not necessary to the development of the action of all; as many operated through the sentient extremities of the nerves. That the sentient extremities of nerves are the media between medical agents and the brain is a doctrine opposed by the author. We are not prepared altogether to ignore the

possession of some property of this kind to the nervous system. We confessedly share, in this respect, the guilt of medical heresy that attaches to some of the most competent observers in the profession. Amongst others, Sir B. Brodie thinks that the action of a medicine or a poison may be partly transmitted through the nervous system. We are aware of there being arguments advanced against this opinion—of which, perhaps, not the least forcible is, that it is unsupported by analogical reasoning—that, in fact, each fibril of a nerve has some particular office assigned to it, and that there is no instance in the animal economy of a nervous filament being capable of performing a double office. But in questions of science we must bear in mind that analogy is not proof; and a principle should be proved before analogy can be available in giving weight to evidence. We will not, however, dwell further on this matter, but proceed with the main subject.

Dr. Headland states that the great majority of medicines are absorbed through the coats of the stomach and intestines, and pass through to the portal veins—that continuity of nerve is not necessary—that the circulation of the blood is sufficiently quick to account for the operation of even those poisons which act most rapidly by influencing the nerve centres, and that the great majority of medicines have been detected in the blood, and found in the secretions formed out of it. Some facts ascertained of late years and now generally received, serve as the foundation of these several propositions. It is conceded that the secretion of the stomach is acid,—that of the liver and pancreas, alkaline; and that these secretions act on different principles taken as food or medicine. In the stomach, the venous system is the agent of transmission of absorbed matter; in the intestines, not only the venous system, but also the lacteal vessels perform this office. Fatty matters, whether food or medicine, are not supposed to pass directly into the blood through the mesenteric and portal veins, but are carried along the lacteal system, after having been emulsified and saponified by the bile and pancreatic secretion. Under this head we must include resins, and medicines owing their efficacy to resin. By the action of the lactic acid and pepsine of the gastric juice, nitro-

genous and other nutritive matters are dissolved and absorbed by the portal venous system.

From the researches of experimental physiologists, it would seem that starch and substances referable to this principle are alike indebted to these different agents for their successive transformation into dextrine and glucose, until ultimately they result in combustion and the formation of carbonic acid. Dr. Headland does not think the lacteals are ever engaged in the absorption of medicinal solution, with the exception, perhaps, of fats and fixed oils, for the following reasons:

In the first place, it appears from the researches of Bernard and others that the lacteal system is a special arrangement for the absorption of fatty substances, and that other matters, such as albuminous compounds, pass for the most part into the veins, and thence to the liver. Besides, it seems that these lacteal absorbents are only in action during the digestion of food, when the epithelium on the surface of each villus becomes loosened, in order to allow to the chyle an easier access to the lacteal within it. So that it is likely that a small portion of the fluid or soluble substance would be insufficient to rouse them to action. And, in the third place, direct experiments of a decisive kind have been made on this point. Magendie has found that the ligature of the lacteal trunks does not prevent the occurrence of poisoning from agents introduced into the bowels. And Tiedemann and Gmelin have carefully sought in the chyle for a number of different medicines administered to animals in their food, and have been unable to detect any of them there. So that, with the exception, perhaps, of fats and fixed oils, we may reasonably conclude that no medicinal substances pass into the system through the lacteals, but that all are absorbed by the veins or capillary vessels.

Two distinct classes of substances are already stated to be susceptible of absorption. Besides these, there are mineral substances soluble in water, in acids, or in alkalies; and vegetable products soluble in water. All minerals soluble in water, we are told, are, without exception, absorbed in the stomach and intestines. It has been argued by some that the purgative effect of saline purgatives of greater specific gravity than serum is in obedience to the physical law,—that the lighter of two fluids of various density passes through to the heavier;—that, therefore, when a saline is so diluted as to be lighter than serum,

it is absorbed, and, when absorbed, produces diuresis; but that when its specific gravity is greater than serum, it purges, by causing a passage of the serum outwards into the intestines, thas producing a watery evacuation.

This theory is opposed by Dr. Headland. He believes that both solutions are absorbed, and the effect, whether purgative or diuretic, mainly depends on the quantity of the salt, as the kidneys will not eliminate beyond a certain amount of it. In support of his views, he made the following experiments:

Exp. 1—A sufficient quantity of white sugar was dissolved in four ounces of water to raise its specific gravity to 1·028, that of the serum of the blood. A sufficient quantity of Sulphate of Magnesia was dissolved in another ounce of water, to render it of the density of 1·060. This heavier solution was introduced into an open wide tube, closed completely below by a clean piece of bladder. It was introduced into a small vessel containing the solution of sugar, and arranged so that the height of the two liquids should correspond. After standing for some time, the inner solution measured two drachms more, and the specific gravity had sunk to 1·050. The outer solution, after making up exactly the loss by evaporation, was found to have risen in density to 1·040. On adding a small quantity of each of the solutions of Phosphate of Soda and Carbonate of Ammonia, a copious precipitate took place, indicating the presence of magnesia. Thus it appeared that the fluids passed both ways, some of the heavy solution of magnesia finding its way through to the lighter solution of sugar. The tendency of this process was evidently to an equalization of their densities, both by endosmose one way, and by exosmose the other. Thus, apparently, would it be with a saline purgative, and with the serum of the blood.

Exp. 2.—Three drachms of Sulphate of Magnesia (a very mild purgative dose) were dissolved in ten ounces of water, and thus administered to a healthy young man. It produced, after some time, slight purging, and some diuresis. The urine, when tested, contained only a very little more than the usual quantity of magnesia. The quantity in the dose was less than five per cent. of the solution, and thus, according to the endosmotic theory, should have produced no purging.

Exp. 3.—Six drachms of the same salt were given in eighteen ounces of water to the same patient. After a few hours it caused very copious and long-continued watery purging. The urine did not seem to be increased, and contained no excess of magnesia. It seemed, that in spite of the dilution, the quantity of

the salt was so large, that it could not pass off by the kidneys, and so was eliminated from the blood by the bowels, in the same way as other purgative medicines. (*Vide* Cathartics, and Chap. IV.)

Exp. 4.—This trial was the reverse of the last. Two scruples of Acetate of Potash were dissolved in three drachms of water, and thus administered. The solution then contained about twenty per cent. of the salt. According to the endosmotic theory, it should have caused only slight purging, on account of its density. It did not do so, but produced diuresis. The dose was so small, that after absorption it was easily eliminated by the kidneys. The alkalinity of the urine which resulted was a proof of the absorption of the salt, and its passage into this secretion in the form of a carbonate. (See Prop. VI.)

Exp. 5.—(In Chap. IV., Art. Sulphate of Magnesia, will be detailed some experiments designed for the purpose of still further demonstrating the *modus operandi* of this salt and others like it. One of these may be quoted here, as bearing directly upon the subject in hand. It proves that a dense solution of Sulphate of Magnesia is absorbed in the intestinal canal.)

Three drachms of Sulphate of Magnesia, dissolved in three ounces of water, forming a solution having the density of 1·060, were injected down the throat of a healthy dog. It was killed after three-quarters of an hour, and the whole contents of the stomach and intestines, none of which had been lost either by vomiting or purging, were subjected to a careful analysis. The result showed that only fifty-five grains of the salt remained out of the three drachms. The rest must have been absorbed into the blood.

To sum up these experiments. The first shows how, in an experiment made out of the body, a dense fluid will pass through to a light one on the opposite side of a membrane, the densities of the two being at the same time gradually equalized. The second and third demonstrate that a solution of low specific gravity will occasion purging, whereas, according to the *Endosmotic theory*, it should not do so. And the fourth and fifth show that a dense solution is absorbed; whereas, according to the *Endosmotic theory*, it should not be absorbed.

We believe there are few at present who will deny that some diseases originate in the blood, and that the most rational mode of treatment must be in meeting the evil in its stronghold—*in fonte* and *origine*. We know we are, in many instances, now possessed of the means of successfully dealing with disease,

whether this depends immediately on the absence of some material in the blood necessary to health or on the presence of what may be positively prejudicial to it. These means consist in what Dr. Headland terms Hæmatics. He divides them into Restoratives and Catalytics, as they are respectively adapted to the two conditions above stated. This classification especially recommends itself by its simplicity. There is an air of truth about it, that unavoidably leads a reader, conversant with disease, to the conviction that it rests on no frail foundation, but that it is destined to remain one of the established facts of science. "Each Restorative has in healthy blood a substance analogous to or identical with itself: it replaces this when deficient. Not so with other Hæmatics. There is, in general, nothing in the blood corresponding to them."

Dr. Headland remarks that Catalytic medicines sometimes simulate the action of particular diseases, and that the disciples of Hahnemann fancy they derive from this a sanction to their absurd theory. The following explanation suggested by our author is ingenious: "This partial resemblance is probably due to the fact that both disease and remedy produce a series of changes in the same set of particles in the blood. If it were not so, the remedy could not meet the disease. It would be out of its province, as not acting at all in the same sphere. But that the actions are essentially different is sufficiently proved by the fact that they counteract each other. The remedy moreover is often of equal efficacy in other different disorders."

We now pass on to a review of the eighth proposition; and here, from the obscurity in which nature veils her proceedings, we are deprived of much of the interest we felt in the consideration of the former proposition. There we had the light of Chemistry to elucidate many things that in former days could be but guessed at;—in the part of the subject we are now come to, we can only grope in the dark. Here the aid of chemical science is wholly unavailing, and those influences which we vaguely term vital, seem to reign with undisputed sway over the many incomprehensible phenomena of the Nervous System. The author, however, is not satisfied without venturing a theory

to account for the action of the class of medicines called Neurotics. We insert his own language. "It is generally believed, among scientific men, that each particle of a compound body is made up of a number of indivisible atoms, each of which is inconceivably minute in size. And as these compound bodies have each a peculiar chemical constitution, so must each of their ultimate parts be composed of a peculiar arrangement of simpler atoms, and thus have a certain shape of its own, more or less different from the shape of every other compound atom. Both the substance of a nerve, and the active part of a nerve-medicine, consist of a number of definite compound atoms. And it is possible that the atom of a stimulant medicine may be of such a shape as that it shall be unable to coincide with, or to fit into, the series of atoms forming the sensitive surface of the nerve, and thus irritate this when brought into contact with it; and that the compound atoms of a sedative may so arrange with these nerve particles as to fit among and extinguish the salient points, and annihilate their natural sensibility."

This is of course purely conjectural, and its truth or falsehood must, from our finite powers of observation, be wholly insusceptible of proof. It is not, however, probable, from analogical reasoning, that nature accomplishes her work in a living body by means so mechanical. Such notions are more suited to the days of corpuscular pathology—the days of angles, spherules and frictions derived from the Cartesian philosophy—than in these of advanced development in science. They cannot, therefore, receive a serious and formal refutation. We have neither confidence in this theory of the action of Neurotic medicines by atomic shape nor in another of the chemical school, though sanctioned by Liebig, Snow and others. As this latter, however, has not received Dr. Headland's sanction, we will not at present consider it further.

We must now bring our notice to a close, having already exceeded the space we originally intended to assign it.

This is a book, the intrinsic merit of which reveals itself in proportion to the pains expended in working the deep mine of intellectual wealth with which it is enriched. The ore, how-

ever, throughout, is not of equal value. What is contained under the seventh proposition defies censure, and is beyond our feeble commendation. The fourth chapter, devoted to "the action of the more important medicines in particular," neither indicates the research nor the matured mind displayed in the preceding chapters. These are bestowed in unequal proportions, through its various parts. This alone would constitute a blemish; but, in addition, there is an inaccuracy of language that takes off from the seemliness of its appearance. These are blemishes which can be easily rectified, and that would now have most probably escaped observation, had not the book by its very excellence invited animadversion; for in proportion to the worth or purity of a thing, so by contrast is any defect of it more easily discerned. Yet with all the trifling imperfections that even the most fastidious criticism can expose, this work must have an undisputed title to pre-eminence in this department of medical literature.

We are in receipt of the following works from W. B. Keen:

Pathological and Practical Observations on Diseases of the Alimentary Canal, Œsophagus, Stomach, Cæcum, and Intestines. By S. O. Habershon, M.D., Londin., Fellow of the Royal College of Physicians; Assistant Physician to Guy's Hospital, and Lecturer on Materia Medica and Therapeutics; late Demonstrator of Morbid Anatomy, and Curator of the Museum at Guy's, etc. etc. Philadelphia: Blanchard & Lea. 1859.

A Practical Treatise on the Diagnosis, Pathology, and Treatment of Diseases of the Heart. By Austin Flint, M.D., Professor of Clinical Medicine, etc., in the New Orleans School of Medicine; Visiting Physician to the New Orleans Charity Hospital; Honorary Member of the Medical Society of Virginia, of the Kentucky State Medical Society, of the Medical Society of Rhode Island, of the Pathological Society of Philadelphia, etc. Philadelphia: Blanchard & Lea. 1859.

Also, from Jones & White, Dental Depot, Chicago:

A System of Dental Surgery. By John Tomes, F.R.S., Dentist to the Dental Hospital of London, and to the Middlesex Hospital. With Two Hundred and Seven Illustrations. Philadelphia: Lindsay & Blakiston. 1859.

A Practical Treatise on Operative Chemistry. By J. Taft, Professor of Operative Dentistry in the Ohio College of Dental Surgery. With Eighty Illustrations. Philadelphia: Lindsay & Blakiston. 1859.

ADDRESS

Introductory to the Seventeenth Annual Course of Lectures in Rush Medical College,

DELIVERED NOV. 1, 1859.

By J. ADAMS ALLEN, *Prof. of Principles and Practice of Medicine.*

Gentlemen of the Class:

With this day commences the Seventeenth Regular Annual Session of the Rush Medical College, and it becomes my pleasant duty, on behalf of my colleagues of the faculty, to bid you cordial welcome.

In a country like ours, where the rattle of the rail car and the click of the telegraph intermingle with the sounds of the axe and the rifle of the pioneer, sixteen years of healthful life and activity give claim to the prerogatives of mature youth, if not of venerable age. Rush Medical College having passed beyond the years of doubtful experiment, and counting with pride its scores and hundreds of alumni engaged in honorable and successful practice of the principles here inculcated throughout the interior valley of the continent, and even upon its western slope to the Pacific, may well exult in the prosperity which has thus far attended its existence, the success which has crowned its teachings, and the brilliant future to which it may warrantably aspire.

We have invited you to these halls, Gentlemen, with the map of the country before us, with the volume of medical history in view, and, as we believe, not untaught as to the requirements of a science which is every day becoming broader and deeper, of an art which is every day becoming more exact and practical.

The metropolis of the North-West, concentrating the business energies, enterprise, wealth and population of a vast region of country unsurpassed, perhaps unapproachable by any other, in all the elements of agricultural, mineral, forest, manufacturing and commercial resources, offered, and still offers, a field for medical observation, experience and communication of their results, both scientifically and practically, which few localities afford. Here the union of science with art, the lecture and the clinic, can be realised, and become prolific of invaluable results.

Medicine, Gentlemen, is a progressive science; it has not reached the region of ultimate facts, around which, as central suns, systems of belief and practice can revolve in perpetual

uniformity, undisturbed by the proximity of erratic truths. It accepts all truths, even though they refuse orderly arrangement. It explains them as best may be, but never submits to be governed by its explanation. The true medical man controls his theories, and is not controlled by them. We strive to bring medicine to the level of the exact sciences by guiding our inquiries, our experiments, our reasoning by the same inductive methods which have brought to light so many ultimate facts, or general laws outside the domain of medicine.

Incident to this attempt, a vast number of general laws, indubitable and exact, have been developed in the various sciences collateral to medicine. These are like the mathematical propositions which one by one for ages were being established, until by and by they proved the rounds of a ladder reaching from earth to the far away spheres, upon which Newton and his fellows have ascended to the ultimate principles of astronomy, and have plucked from the firmamental orbs the secret of gravitation.

Day by day the cultivators of our science are aiding in this great work, and, although it may not occur in our day, yet by the united opinion of the greatest names known to our science, we are warranted in believing that we stand upon the threshold of discoveries which shall forever release medicine from the imputation of being in any sense, "a conjectural art," and bring it upon the level of the exact sciences. This is the great object now before the professional world, and to the attainment of it certain qualifications are indispensable.

1. A clear, accurate and general acquaintance with all the known facts of medicine, including its collateral sciences, together with all their discoverable bearings upon each other.

2. A sound mind educated *how* to think, and free from subserviency to dogmatical injunctions of *what* to think.

3. An acquaintance with the history of the operations and results of other men's thoughts upon the same subjects.

Gentlemen, if any of you, in commencing the study of medicine, has been in any degree induced to take it up from a feeling of indolence fostered by the popular idea that in this science discrepancies of opinion are almost the rule, and therefore it is of trivial importance what particular ideas you do collect, you must allow me to disabuse your minds at once of this fatal error, by calling your attention to certain great classes of facts, which are as fixed and indubitable as nature affords, and of which you must attain a knowledge, even though you aspire but to a humble or mediocre place in the profession.

Thus it is seen that the Anatomical Structure of man consti-

tutes a science of itself, though only a fraction of the medical cyclopædia. The shape, size, position, relations, general and minute structure of each part; the occasional diversities within the limits of health, are topics where all creeds and sects of medical men, whether surgeons or physicians, find common, indisputable and indispensable study.

Again, the body is surrounded by various materials, some of which in life it receives into its interior, and into which after death it is decomposed. All substances influence it, and all forces may come in contact with it, and how can the resulting effects be explained, unless both substances and forces be in themselves understood? Hence Chemistry in all its range and minutiæ—the scientific history of all ponderable and imponderable agencies must be investigated and understood as essential and constituent parts of the one great science of medicine.

But as in anatomy, the organs are to be studied, in repose, so it becomes necessary to study them in action. The prominent motions evincing animal life; the movements of fluids in their channels, as common or peculiar to animals and vegetables; the motions, transformations and conduct of the minute cells which the microscope brings into view; the changes which food and air undergo on being received within the body; the nature and source of animal heat; the nature and relations of the diverse fluids, their operations within and without; the development of the embryo to the adult, of cell and membrane and pulp to gland and nerve and muscle, of cartilage to bone; the separation of conjoint actions, and assignment of each to special organs; the mysterious organization through which the mental part develops its influence, and the modes of its manifestation; the influence of vital stimuli and all forms of force in promoting, retarding or modifying the action or composition of each or all of the organs; the determination of all influences, whether of form, connection, integral constitution, or of force, that maintain the equable and harmonious action of the several parts, and of the system entire. Surely here is the science for a life's pursuit.

But, as one has well said, "Had there been no other animals, the nature of man would have been far more difficult to be understood;" thus it is seen that philosophic Zoology is also to be studied. The internal and active organs of man are removed from the sphere of direct inquiries, save in rare and accidental cases. Hence we are led to search out the modes of action in animals having corresponding organs; or, if general likeness, but particular differences obtain, then to seek for the differences, and assign, if possible, the modified structure or

conditions giving origin to them. Thus, little by little, we are led along, connecting structures and functions of the first simplicity, with structures and functions of the last complexity; contemplating life and organism, not in isolated instances, but in the linked series which they form, filling up one grand system, and rounding out the circle of animal life. And when, here and there, at intervals, a few links are found wanting in the grand chain, the very absence indicates the route of discovery to other instances, perhaps in the unexplored regions of the earth, or buried with its fossil forms, or yet to appear, of individuals that would complete the wonderful catalogue, and in the symmetrical plan of organization, fill up the vacant places.

Perhaps it is safe to say, that there is no other single science which at the present time is more minutely known, and in which the permanent trophies of inquiry are of more triumphant nature than in Physiology, or the science of life.

To the study of anatomy, chemistry and physiology, however, is yet to be joined that of disease or Pathology—that science which includes all we may know or apprehend of those changes in the structure or action, of parts or the whole, of the animal framework that impair perfection, or tend to dissolution. All of these, we believe, to be reducible to series and their causes to be developed. At one time variations of structure by direct injury, decomposing agents or poisons are seen to prevent the toward impression of vital stimuli; or these latter begin the difficulty, by similarly impairing structure. Now, the influence of general causes deranges the parts, and again deranged parts disturb the nice adjustment of the whole, and utter disorder ensues. Sometimes impaired action is noticed, with no manifest change of structure, or apparent modification of the sustaining forces of life. By a little examination it is seen that these apparently irregularly disordered actions and changes frequently fall into groups capable of being distinguished as peculiar, thus forming natural families with subordinate divisions. Each group attended, in the main, by special changes in the material constituents of the body, and preceded or accompanied by particular conditions, becomes as definite an object of study as newly discovered species of plants or animals, or new elements or compounds developed by the manipulations of the chemist.

Here and there a group may baffle even expert pathologists, and become a *questio vexata;* just as botanists, zoologists or chemists may have difficulty in assigning a habitation and name to some refractory members of their usually orderly families.

All questions here are upon the facts, to be settled as in all studies of nature by reference to the senses and their report. The subject matter is not within the appropriate range of hypothesis or theory; the laws of strict induction are here indispensable.

Theory may include all known facts, and hypothesis may apparently account for them, but to establish a law it becomes necessary to prove that the relation of the facts is not only general but *essential*. Theory can govern no farther than the instances actually examined and included, whereas a law invariably includes all the vast number of unexamined instances.

Thus, of the great number of theories invented since time immemorial to include the causes of disease, and the changes involved, it is sufficient to say that they were the product of a knowledge of facts merely without instances contradictory, which may be almost innumerable, and yet the systems based upon them be liable to overthrow at any moment by the discovery of new facts. And indeed this may be freely admitted to be the case with all preceding and all present theories upon this subject; nevertheless the discovered facts remain unchanged, and many of them have been referred to laws that can no more be shaken than any other demonstrated laws of nature.

The signs by which disease is discovered are daily becoming more accurately defined; fanciful distinctions are being discarded, and real ones pointed out; causes are being investigated and made known; changes in structure and action are progressively detected with greater minuteness; and thus pathology advances with steady step to the goal of scientific perfection. To this general statement, it is no objection to urge that in many details there is a complexity which, thus far, has eluded analysis. The wonder is, not that so much remains mysterious, but that in such a confessedly obscure subject, so much has been wrested from the domain of ignorance and darkness. Consideration of what is really known upon this topic, notwithstanding the tortuous path by which discovery has wended its way, may well impress the sentiment:

> "Trust not the frantic or mysterious guide,
> Nor stoop a captive to the schoolmen's pride;
> On nature's wonders fix alone thy zeal,
> They dim not reason."

Acquaintance with the branches of medical science adverted to will infallibly suggest numerous particulars, observance of which will ward off or prevent the incursions of disease. Practically the whole art of Hygiene springs as naturally from them as a tree from its roots.

Thus far, Gentlemen, you will perceive that I have made no allusion to the use of artificial curative agencies, whether medicinal or surgical. Indeed, it is quite possible to perform the higher parts of a physician's duty without recurring to special medicines; those who suppose that the art of medicine consists solely, or even in greatest part in the administration of drugs, entertain but a limited conception of its real character. And as it is precisely here that the greatest discrepancies of opinion occur, you will readily perceive that you have enough to occupy your time and attention for a long period yet, before you will reach the debateable regions of the science.

Oportet discentem credere—oportet edoctum judicare—is a maxim emphatically true in medical science. To be able to form opinions of any value you must stand upon a level with, or above, the facts. This is the simple, common sense reason, why what we call the regular or scientific physician will not stoop to hold controversy with the manifold shapes of quackery and charlatanism, in which ignorance vainly disguises itself. Not from any unwillingness to acquire new truths, but because opinions or doctrines based upon knowledge of a few, or perhaps upon no facts, though they may happen to be true, are infinitely more likely to be false and absurd.

Many persons seem to think that it is a mark of weakness not to have a full fledged opinion, upon any subject that is brought to their notice. They will decide the profoundest questions in ethics, politics, law or medicine, with an oracular assurance, which proficients in either of these departments of inquiry will strive in vain to acquire. I need not say to you that, as students of the recondite sciences collectively styled medicine, such self confidence is unworthy of you. As Lord Bacon suggests, you can no more enter this earthly kingdom of knowledge, than the celestial kingdom of Heaven, without first becoming as little children. Your minds must be ready to receive truth as propounded. If you are deceived by your instructor, wittingly or unwittingly, the chances are thousandfold that this will be less frequently repeated, than if you undertook your own guidance. It is a proverb among the lawyers, that he who undertakes to conduct his own case has a fool for a client, and the professional student who at the outset of his career determines to follow the uncertain lead of his own abortive notions will, sooner or later, find that he has undertaken a task which does more credit to his will than to his judgment or understanding.

Thus, upon the immediately practical branches which will here be taught, it must be insisted that they be fully received

for your present guidance, whether in the practice of medicine, of surgery, or obstetrics, until after having acquired a competent acquaintance with all the necessary preliminary facts, you become qualified to rear the superstructure of your own opinions upon them. And in this connection the second proposition heretofore laid down becomes immediately important.

If your general education thus far has been properly conducted by your several preceptors, you have been taught how to use the mind in the acquisition of knowledge. Incident to the discipline required for this purpose, you have acquired some little store of knowledge. You have received many facts and principles likely to prove of direct service to you, but a large proportion of your studies have not had this object. Strength, and knowledge how to use it, have been the purpose.

If you have been conducted into the higher realms of mathematical study, it has been not that you should bring thence materials for every day use, but that your minds might come back firm, and exact and strong. If you have been led among the works of classic times, and devoted many toilsome hours to form an acquaintance with the languages in which they are written, it has not been that you may interlard your written or spoken words with choice phrases from comparatively unknown tongues, or that you might use them for every day's service, but that you might acquire keenness of perception, sharpness of discrimination, power of analysis, clearness, copiousness and accuracy of expression—faculties which may be cultivated by other means, and in which individuals may naturally differ, but which the experience of the world has shown to be peculiarly advantaged by this particular method. And so when you enter upon a course of study in the medical college, a very large proportionate object is, that you may be taught how best to employ your faculties in the future attainment of medical knowledge. We of the corps of instruction shall gladly point out what we believe the right and true path, accompany you a little way along its course, and then bid you God-speed. We shall do our best to instruct you in the facts of the science; we shall do our best to instruct you how to put them together and make use of them; how to think of them; but we forwarn you that then comes your own struggle, from which there can be no escape.

Per aspera ad astra is written all along the path of human endeavor. There is no royal road to knowledge, either medical or other. There is no cunning device of man, no adroit mechanism, no shrewd and shapely plan or scheme or programme which may be conceived, or written or printed, which will relieve you, or any other man or men, from the necessity

of struggling and toiling and working, if you would ascend upward toward the temple of knowledge. In these latter times we hear much of adroit methods by which "knowledge is made easy." To hear some men, even of our profession, talk, and to read their writings, you would half expect that, by means of cunning methods of reform, the whole science of medicine could be wrapped up in a yellow-covered pamphlet, and, like "French without a master," be imparted in "six easy lessons."

On the other hand, there are those who would undertake to convince, that the advances in our profession have been such within the latter years, that it is a hopeless task for the student to undertake to acquire an acquaintance with them by any of the means which have hitherto received the sanction of the medical world. A new and royal road must be constructed—a kind of railroad to the hill-tops of knowledge—upon which the medical neophyte may take passage at a low rate of fare, and by the aid of numerous conductors, engineers, brakemen and switchmen, be conveyed to the *ne plus ultra* of medical wisdom —*cito, tuto et jucunde.*

With the ideas in the ascendant which we have heretofore laid down, you will at once perceive that with such fancies as these we have no sympathy—no affiliation.

How much that is indisputable and necessary to attainment, we have endeavored briefly to indicate. This is, always has been, and always will be true. There is no more of a burden laid upon the shoulders of this than of any preceding generation. Neither is there any less, nor will there be. Science has advanced with wondrous rapidity within the years that are past, but we have neither more nor less to acquire than our fathers had. It is a peculiarity of science, that while it is constantly accumulating to itself, it is also constantly separating from itself. The worthless, the cumbersome untruth is cast out as effete.

Take any branch of science you choose, and observe its method of advance, and see if this be not true in general and detail. I have sometimes thought truth might be compared to the statue within the as yet untouched block of marble—all that is wanting is for the master's hand and chisel to remove the rough and worthless material about it—to remove the surroundings which hide and smother it. And thus here in medicine, we glory in the fact that the advances made are not so much in the accumulation of rubbish which has to be removed and piled away by the pupil, but rather consists in actual removal of the rubbish, and more distinct approach to the truth in its simplicity.

And here I cannot forbear to suggest another idea which occurs to me, although it may appear to have a wider scope than the topic directly under consideration. It is this. Old and tried methods of acquiring knowledge which have stood the test of all varieties of innovation and attack, and which have, confessedly, produced such an intellectual and scientific harvest as the world has never before seen, ought not to be discarded or denounced, unless in favor of new methods of unquestioned and unquestionably great superiority. The danger is too vast to be incurred without positive promise. Confining this idea to medicine, and I must be allowed to observe that the present state of the science, and the brilliant catalogue of names of high worth, distinction and promise, which it presents to our view, whilst they may well cause our hearts to thrill with exultation at the success attained, inculcate, in the most impressive manner, an imperative caution lest we open the door to causeless innovation, and instead of "elevating the standard," we "hang a banner upon the outer wall," which shall speedily be prostrated amid utter confusion and turmoil.

I have stated that an acquaintance with the operations of other men's thoughts on this subject is important to the student. The advantage of this is twofold—it teaches what to do and what to avoid. Although the minds of men are not identical in action, they so far resemble each other that we may reason from one to the other with very great certainty. There is not an error afloat at the present time but what has its prototype upon the page of history. Perhaps we may say that there is not a truth now received, but what a more or less clear or dim apprehension of it has occurred to minds long since departed.

Many an inventor, ingenious, sagacious, skilful, has wasted his life in attempting combinations which a brief visit to the inventor's room at the Patent Office would have shown him to be fruitless, or, at the best, previously anticipated. And thus in the history of medicine we have a museum replete with instruction. Here you may derive hints which shall guide you to great discoveries—here you will find wrecks and beacon lights which shall preserve you, not only from attempting the impossible, but also from attempting the possible by impossible methods.

Here you will find thickly recurring evidences that that genius, so much coveted by men in general as enabling them to clear by single strides the long and tedious road of study, in far the greater proportion of cases has proved a bane to its possessor. The pages of that history will convince you, if nothing else will, that distinction, whether in the science or art of medi-

cine, in the vast majority of cases, is due not to genius, not to especial advantages in the paraphernalia of education, but to a constant, assiduous devotion to the acquirement of knowledge and the cultivation of right modes of thought, so as to know the proper use to make of it when once acquired.

We invite your attention, Gentlemen, to difficult studies, vast in extent, varied in character, and yet, by the peculiar nature of the subject, acquaintance with each is indispensable to correct knowledge of either. For, let me forewarn you, that although for convenience, and of necessity, we assign particular branches to individual instructors, yet this division is almost wholly arbitrary—the parts are all of one body. Hence it is that instruction upon them is carried on, in point of time, as nearly concurrently as possible. Separation of these departments from each other, whether elementary or practical, is much like the Egyptian method, which appointed a medical custodian for each member of the body, and precluded each from meddling with the province of the other. Oftentimes the patient died, and all Egypt was startled to find that, as in case of railroad and steamboat accidents at the present time, the verdict of the doctors sitting each upon his particular organ, was, "None of these to blame." One prominent advantage of the usual lecture system adopted in this country is, that by this course we are enabled to keep the body of the science together, you are not obliged to gather up its mangled fragments, scattered along a couple or more of years.

Those of you who are attending the medical course for the first time will obtain a more general view, which will guide your studies to better advantage, which will suggest to you what points are especially noticeable and important, and when next you meet with the instructors of this, or some other college, you will be enabled to advance from generals to particulars, and with proper diligence will readily grasp and retain all or nearly all, that your teachers have opportunity to convey. And you need not fear to acquire everything which can be possibly imparted in the medical curriculum—you need not fear lest having overcome everything here, like Alexander, you must weep because you have no other worlds to subdue!

Above and beyond all this, you will have an open field for the exercise of every energy, of every faculty you may possess. The particular mode of imparting instruction usually adopted by the medical colleges of this country, and also throughout Europe, although it has been sharply inveighed against, and attacked from various quarters, we must still believe to possess peculiar and marked advantages.

Oral instruction, as communicated in the lecture room, calls into active exercise the faculties of attention and perception—faculties of the highest importance to the future practitioner as well as the student. A few weeks' experience will prove to you that the discipline thus afforded is of the most valuable character. At the outset, perhaps, you may feel discouraged, possibly disheartened, at the idea of attempting to follow along with the rapid procession of truths which will, hour after hour, and day after day, be moving on and on. But let me reassure you, and call for the testimony of those who have gone before you in the same course. The task will daily become easier, and before the lapse of one-third or one-half the session, you will find it a matter of little or no difficulty.

There is an intimate relation which gradually becomes closer and closer between the lecturer and his class—scarcely to be explained by words or philosophy, but every teacher, every student readily appreciates it. The instructor in communicating knows whether he is understood; he can read his own thought mirrored in the eyes, photographed upon the features of his auditors. If that mirror fails to reflect the idea, if that moving feature fails to give back the form thrown upon it, the object will again and again be held up till the mental light has fixed it forever. Here books fail—here the speaker triumphs. And the triumph is not his alone, for the new idea gained is the student's victory also—it is one step further toward the ultimate goal of knowledge—it is another assertion of the supremacy of man over ignorance and folly and delusion. Count me the value of a single truth, and I will multiply it for you into the sum of all values which separate the civilized and enlightened Anglo-Saxon from the Hottentot of the Cape!

And permit me to say, Gentlemen, in this connection, that even the number of lectures to which you will daily listen are so apportioned as to meet the best uses of the mind in discipline. Six lectures a day, of an hour each, are no more than a healthy and moderately well disciplined mind requires to bring out its true power. Science brooks no indolence in its votaries, and slow movements are abhorrent to fleet stepping truths.

It is not the mere acquirement of knowledge which is wanted—it is something more—it is culture and power. A Hercules is not brought to his full stature by careful feeding, nursing and seclusion from effort. Athletæ are not so produced. Muscles must be exercised daily to their utmost in order to full development, and so must brains. The oak may thrive in a hot house, but it will lose many of its most admirable characteristics. If it would bid defiance to the storm, it must from its infancy be *subjected to the storm*, so that its roots

shall sink deeper, and take firmer hold upon the soil and its rocky substratum.

And so of the human mind, if you would have it developed into all the majestic proportions of which it is capable, you must, from the earliest dawn of its development to the final hour, tax all its energies, all its capacities.

Pressure is what is needed—collision with all the wants, anxieties, ambitions and cares of life. Troublous times and imminent crises in the affairs of nations produce harvests of great men—"piping times of peace," luxurious ease and philosophic retirement, straggling weeds of littleness only. None of you rightly know what you can do until stern necessity, or fierce ambition, compels to the effort; and you are angels, and not men, if you do what you might without.

My friends, have you ever thought what this human mind of ours is, or even what it is like? Have you measured its capacities, and marked the limit of its growth? Have you ever thought that from the cradle to the grave it grows unceasingly, and commands to itself the servitude of all of existence, whether seen or unseen, from the next material object to the coming light of the farthest star?

The scriptural injunction is not only to do certain things, but "whatsoever thy hand findeth to do, that *do with thy might.*" Put all your power, not only of muscle, but of heart and brain, into the work.

We expect, Gentlemen, to fill up all your time with work. We do not call upon you to idle away an hour; we propose to ascertain what manner of men you are. We want for this profession of ours recruits that not merely understand tactics, but are capable of drill and service, with iron muscles and active brains. Let the sick men and the children, who cannot keep up with the grand army, fall back into the rear with the women, the sutlers and the baggage.

And the history of the profession bears us out in the doctrines we advance. Who are the stars of the profession in this country and throughout the world at this hour? Those who feebly complain that too much labor was imposed upon them during their pupilage? Not one—not one! But those who wrought with a will at the work before them, and rejoiced at the very burdens imposed. This is the only way to bring out the true man. Why, you can only get at the truly gigantic force of steam when you bear it down and put your weights upon it, cage it up in iron walls and put fire under it—then you will find the secret of its power, and, wo to the unlucky wight who does not "look out for that engine when its bell rings!"

Very well intentioned gentlemen, easy going gentlemen with

pens in their hands and crotchets in their heads, in very good and grammatical English, and in very bad and ungrammatical attempts at English, have duly expressed their profound concern at the dubious character and prospects of the rising medical generation. The nervous system of this new generation is too delicate to be subjected to the stern labors and rigorous processes which their fathers endured. Indeed, it has become quite a fashionable mode of securing reputation as a sage, to diagnose in the bodies of juvenile candidates for the profession weaknesses which must preclude them from undergoing that discipline which made their fathers staunch and strong. We do not so believe—for the credit of manhood we will not so act.

Haud inexpertus loquor—from my own personal observation I am ready to give evidence, that the number of lectures *per diem* here given is not only not too much for the student, but, taking the average, it is much better for him than any less number. Let the profession give testimony. One other point, in this connection, by way of explanation and encouragement. The different branches of medical study are so intimately related to each other, that they mutually facilitate clear understanding and recollection. Thus, of the large number of facts which will day by day be brought to your notice, a very large proportion will actually serve as helps to the memory in retaining the others. This is peculiarly the case with observations in clinical practice in the various hospitals to which you will here have access, and in the variety of cases which will from time to time be brought before you in this building. To use a homely figure—each case will furnish you a string upon which you can collect in one view many important facts, anatomical, physiological, pathological, therapeutic or surgical, as the case may be. The clinic will thus afford you a faithful and reliable mnemonic chart, infinitely preferable to the absurd and unphilosophical schemes which mere memorizers are so constantly inventing. For, after all, the clinic is the soul of the body of instruction—our art and science culminate in the cure of disease.

You are to look upon hospital and other observation, therefore, not as adding to your labors, but as facilitating them. Few persons seem to understand the true import of the faculty of memory. We hear many complaining of the want of this power, and we are often ready to complain of its exuberant manifestation. May I venture to impart a secret? That which is thoroughly mastered and understood cannot be forgotten, and on the other hand, that which you can neither master nor understand, had best be forgotten as speedily as your mental constitution will permit. A muddy, half concep-

tion of a truth is worse than none at all, and it is notorious the world over, in all points of belief, that no doctrines are so strenuously adhered to, however absurd in themselves, as those which have some shadow of truth in their foundation. The meagre half-truth, after a very aboriginal fashion, is made the vehicle or trumpet of a horde of plethoric falsehoods.

Need it be said that a clear apprehension of the facts and principles which you will here be instructed in, will forever preserve you against falling away into the belief or practice of any of the multitudinous varieties of medical delusion or imposture with which the world is full?

I congratulate you, Gentlemen, that you have commenced the study of a profession wherein is permitted the most complete independence of thought. We have here no edicts which control unalterably, save those which science itself imposes. You are free to think and judge in medicine, as in any of the natural sciences—no more, no less.

And yet we are proud to assure you that ours is a conservative profession. The new fact, or new principle, which would find place in our creed, must come thoroughly demonstrated and proven by all the tests which modern science affords—no more, no less.

Whilst we have signed a declaration of independence against ancient dogmas, we nevertheless refuse to be dragged as willing dupes at the chariot wheels of every loud-voiced imposture, although it labels itself upon its brazen forehead—*Progress*. Asserting freedom, we avoid that anarchy of opinions wherein we should neither be governed by others nor by ourselves.

Of this anarchy of minds there are, alas, multitudinous examples in these our times, beset with changes which are progress, and changes which are not progress, but a miserable retrograde towards barbarism.

The street corners are vocal with noisy declamation of pseudo-reformers; the books and newspapers overflow with the inky diatribes of those who would re-create the world after models which it would be no sin to worship, being unlike anything in heaven, on earth, or in the waters under the earth. It is an unfortunate fact, that many truths in government, religion, science and art have only been received after great opposition, by the world, and hence at the present time, there is not an impudent quack or arrant knave, tampering with either of these, but congratulates himself on the kicks and cuffs he receives from all sober-minded, thinking men, because he can use them as arguments that he too is a great reformer, very badly treated, and therefore in the right!

Poor old Galileo was sent to prison because he saw fit to

make use of the earth's revolution upon its axis, as an argument against certain doctrines of the Church; and now there is not a pestilent disturber of the public peace, there is not an absurd fanatic, there is not a meddlesome demagogue, there is not a noisy mountebank, but when derided for his folly, dashes his heels against his ricketty wheelbarrow of notions, and *a la* Galileo, exclaims—"It does move, anyhow!"

Something more than opposition is required as a test, whether of truth or falsehood, as many in these days are beginning to find to their cost.

You may be independent men, but to be truly so, you must first be studious and thinking men. The mandate has come down from the earliest dawn of time, by the sweat of man's brow shall he live—live corporeally, live intellectually, live spiritually, and wo to him who disobeys.

Nor is there any real hardship in this, as the indolent and slothful imagine. Obedience to this law of our being converts the primal curse into a perennial blessing. The sluggard is but one remove from the vegetable—the earnestly industrious man advances day by day with ceaseless progression towards the attributes of the Divine.

It is work, effort and toil which have mapped the continents with cities and towns and hamlets; which have replaced the wilds with cultivated farms, and the void deserts with all the arts and busy hum of civilized life; which have "spanned the rivers with great bridges unknown to our fathers;" have traversed the seas with sailless ships; have covered the earth with railways and telegraphs; have carried the sciences to a meridian splendor, and have made man truly—"In action, how like an angel! in apprehension, how like a god!"

It is a proud reflection, Gentlemen, that our profession has always occupied a distinguished place in the van of the world's onward march. All along the glorious catalogue of those whom the grateful ages "will not willingly let die," the names of medical men glitter as "bright particular stars," and, to-day, no higher homage of admiration and respect is paid to any other than those which our profession claims as its chosen ones.

Disappointed aspirants for fame on the basis of slight attainments and pauper intellects—misanthropes overborne by dyspepsia and hypochondria—enthusiastic dreamers of Utopia—these and the like may ventilate their ululations over the degradation of the profession, but to these we have no response save an indignant denial of both their premises and their conclusions.

We welcome you, Gentlemen, to no degraded position, but to one which of itself merits and receives honor, and to which we trust you will hereafter bring additional reasons for popular confidence and respect.

Beyond this we may say, that in the professional ranks you will be allotted a place entirely commensurate with the intellect, culture and acquirement you bring with you. On the progress you here make in medical science will depend much of your ultimate success. Endeavor to lay the foundation broad and deep, that you may build vast and high. Aim at a clear understanding of the subject, rather than mere memorizing of details. Seek strength and solidity rather than words and phrases. The time will come when the parrot tongue will not answer—*brains* must have to do with the work. The alphabet and the dictionary must be passed by for the book which may be known, and read of all men.

To whatsoever we, your temporary instructors, can do to advance you towards eventual and deserved professional success, we bid you earnest, heartfelt—Welcome!

EDITORIAL.

LEGAL MEDICINE IN ENGLAND AND IN CHICAGO.

Thomas Smethurst was recently tried and sentenced to be hanged for the murder of Miss Bankes. This sentence has been commuted, and he is to be imprisoned for life.

We learn from the *Lancet* that the moral evidence of his guilt was thought uncertain, and that the testimony on which the charge was founded was that of Dr. Alfred Swayne Taylor, author of a standard work on medical jurisprudence, who, on the *inquest*, testified that he found arsenic in the contents of one of the bottles found in the possession of Smethurst. It was this testimony which virtually condemned Smethurst before the trial.

"On application to Brande, this veteran chemist suggested that possibly the copper wire guage used by Dr. Taylor might have contained arsenic." "Such was found to be the fact when the copper used for testing was in turn tested." Such a mistake is naturally calculated to cast doubt upon the value of

Dr. Taylor's authority as an analytical chemist. There are, however, other facts calculated also to throw discredit upon his correctness.

He says, in the late edition of his work, p. 694, "A man may die from strychnia and no trace of it be found in the body." Mr. Taylor makes this statement apparently as a defence of his position in the case of Palmer, in which he testified to finding no strychnia. But it is now known that Dr. Taylor is in error in stating that strychnia passes quickly out of the tissues. Messrs. Rogers and Girdwood (*Lancet*, for Oct., 1859) have "demonstrated a singular persistence in their original shape long surviving the processes of decomposition and putrefaction in the tissues with which they are immaturely combined," of strychnia and other poisons.

Again, Taylor says, "Curara, which has, when swallowed, but a slight action, would, however, give the chemical relations of strychnia in the stomach," *op. cit.* p. 680. If this be so, there is then no distinctive test for strychnia. Not being a chemist, we were unable to go into this subject fully, but the facts we have stated. The error into which Mr. Taylor fell in quoting the testimony in the case of Green, lead us to believe that where human life and reputation are at stake, better chemical authority than Dr. Taylor should be demanded.

Are the analyses generally furnished in such cases more reliable? We fear not. The public authorities in this city generally go on the plan of economy, and the cheapest doctor has generally been employed to make post mortem examinations for the coroner, and no chemical examination is sought except in cases like that of Greene, where public opinion demands it. In case of need, we have the satisfaction of knowing that we have a chemist who is capable, laborious and conscientious, whose skill is unquestioned, but the public authorities would never think of giving him *carte blanche* in a difficult case. We see it stated that in the case of Stephens, Prof. Doremus *received* $3,000 for the analysis, and $600 for a new apparatus.

We deem it a duty, as it is a pleasure, to say that the analysis of Dr. Doremus in that case is more perfect and satisfactory than any other of which we have knowledge, either in Europe

or America, and it must be no small relief to a court and jury to be able to have such evidence on which to base their action.

Lest this reference to the public authorities here should be misunderstood, we deem it proper to add that it has no reference to former or present public prosecutors, who are capable and indefatigable.

But the case of Jumpertz, in which the theory of the prosecution was, that death was caused by poison, and in which the public authorities had the whole of the body in their hands (except the viscera), and in which, so far as is proven, no chemical examination was demanded, exhibits an ignorance, or a negligence somewhere, which shall not be passed over in silence. If, as is contended, Sophie Werner was poisoned by Henry Jumpertz, with arsenic, strychnia, or any ordinary poison, that poison still exists in the decomposed tissues of the body, it can be brought out, and made visible to court and jury.

Will it be done?

Prof. Brainard:

Dear Sir,—In compliance with your request that I would examine the remarks of Mr. Alfred Taylor, in his last edition of his work on Poisons, in reference to the case of Greene the banker, indicted and convicted in this city in 1854, for the murder of his wife by poison, I send you the following:

The extract referred to will be found on page 696 of Taylor on Poisons, American edition of 1859, and is as follows:

"At Chicago Circuit Court, December, 1854, and January, 1855, G. W. Green, a banker, was charged with the murder of his wife by strychnia. He had been married for many years, and the general evidence showed that he had latterly maltreated the deceased. It seems that she died suddenly while in apparently good health, and no person witnessed her death. The prisoner assigned the cause to cholera, and made some contradictory statements. An inspection of the body by Drs. Myers and Freer, revealed no cause of sudden death; there was no disease. There was lividity about the throat and eyelids, the tongue was protruded, and the limbs were in a rigid state. The stomach, intestines and brain were healthy; the lungs and heart were also healthy; but the heart was empty, as well as

the great vessels near it. Dr. Blaney, a chemist, deposed to finding strychnia in the contents of the stomach of deceased. He employed Slas's process, and estimated that the whole quantity which he found amounted to the twentieth part of a grain. He used the color tests, and, having produced some of the crystalline matter in court, he applied the tests for the satisfaction of the jury; one gave the result indifferently and the other not at all. The crystals had a bitter taste. It proved that in the drawer of a bureau, of which the prisoner had the key, strychnia was found; and it is stated, that in the same bureau quinine was kept, which deceased was in the habit of taking for ague, from which she suffered. It was also alleged that deceased herself had used strychnia for poisoning animals. The defence, therefore, turned upon the possibility of deceased having taking the poison (if taken at all) by some mistake, for quinine. Nevertheless the prisoner was convicted. A new trial was moved for and granted.

There may have been other facts of a moral kind, which led to the verdict in this case; but, viewing them as they have been here reported to me, there was a failure of the medical evidence to show that death was caused by strychnia. Nothing was known concerning symptoms; the appearances were of a negative kind, and the chemical analysis, admitting it to its fullest extent, merely proved the evidence of a medical dose of strychnia. In fact, but for this chemical evidence, there would have been no case against the prisoner, and this evidence, in a scientific point of view, was not satisfactory."

It will be observed that Mr. Taylor here makes a wholesale charge, that the conviction was made on insufficient evidence, and also that "this evidence, in a scientific point of view, was not satisfactory." It is the latter charge mainly that we wish to notice.

Any one familiar with the trial of Greene will notice in this statement several important errors, and equally important omissions; and hence it conveys impressions unjust to all the parties concerned in the trial. It is to be deplored than an author of such reputation, and claiming to be an authority on medical legal subjects, should permit himself to pass judgment upon a respectable court and jury, without taking the trouble to inform himself correctly of the facts of the case, especially when it was in his power to do so with but little trouble. He has obviously had his information from some second-hand

statement, or from some incorrect, condensed and unauthorized publication of the evidence—such a course cannot but throw doubt on the credibility of his statement of other cases, and depreciate the value of his work as authority. He that attempts to criticise should see that he is not himself subject to criticism.

The first omission of importance is in the statement of appearances after death, viz., that the stomach was filled with food of a recently injested meal, which negatived the theory of the prisoner, that death was the result of cholera, and also the hypothesis of an irritant poison.

In the statement of the chemical evidence, my written report, which was admitted as evidence, and which gives more fully than the oral testimony the various tests, *is not noticed.* Had the author examined this, he would have found that every color test acted distinctly, as made separately and side by side with a known specimen of strychnia. Also that the crystalline forms of the strychnia obtained from the stomach, as examined with the microscope, was the same as of true strychnia. That the chemical habitudes with solvents, of its salts with acids, its bitterness, etc., were all corroborative of the color tests. That these tests were frequently repeated by myself, and in the presence of other parties, and *invariably acted characteristically.*

In regard to the statement of the tests applied in court, there is an important error. He says, "having produced some of the crystalline matter in court, he applied the tests for the satisfaction of the jury. *One gave the result indifferently, and the other not at all.*" This is false in fact. The tests did act, and that distinctly. It is true that one of the tests when applied to a *very minute* fragment of a crystal, though giving the proper color, was so evanescent that time was not allowed to pass it round the jury; but in that case, the *author fails to state* that, on repeating the trial with a larger quantity, *it was strikingly distinctive.* This is distinctly stated in the published evidence. Why does the author not give the whole of the facts? Why does he repress the fact of the repetition of the test when he states the failure in the first trial? Obviously he was not in possession of a true record of the evidence, or his perusal of

it was less studied than it should have been, to do justice to the court or the witness.

Certain important omissions occur also in the narrative of the moral evidence, which I have not space to notice, but which acted strongly with the jury.

He states "a new trial was moved and granted." This is not true; the new trial was *refused*. The case was carried up to the Supreme Court, and before decision, *the prisoner hung himself in his cell*, not having been sentenced.

He states that the chemical evidence "merely proved the existence of a medicinal dose of strychnia"—having previously stated that I had estimated the quantity found amounted to the twentieth of a grain. He does not state that my impression was, that I had a larger quantity, but, upon being urged in cross examination to swear to having found a specific quantity, I would not state explicitly that I had more than that amount. The poison was obtained in separate parcels, and I feared to collect them together to weigh them, lest there should be a loss of a part of it. This appeared in evidence. After all, the statement that there was only a medicinal dose discovered, when all circumstances was considered, is but special pleading. It was in evidence, that the contents of the stomach only were operated with, none of the blood, or the tissues remote from the stomach, were included in the analysis. Hence, on the assumption that death resulted from the poison, that portion which produced death, having been removed by absorption, would not be found in the stomach.

Again, the quantity of the contents was over half a pint, and a heterogeneous mixture. Stas's process, as the author well knows, is long and complicated, requiring numerous solutions, filtrations and washing of the residues. Hence, it is scarcely to be expected that the whole quantity of the strychnia could have been eliminated in a sufficient state of purity to give the crystalline form distinctly, and all the color tests. Would Mr. Taylor expect to obtain the *whole* of a medicinal dose of strychnia in the contents of the *full* stomach of an individual who had died from any cause immediately after its administration? Is it reasonable to presume that the medicinal dose was

taken by Mrs. Greene immediately before death, or, if so, that I obtained the whole of it? Is it true, then, under all the circumstances, that the chemical evidence "*merely* proved the existence of a medicinal dose of strychnia."

Sufficient, I hope, has been said, to show that, to say the least, Mr. Taylor has been exceedingly remiss in his duties as an author and critic, in his review of the case of Greene.

Yours truly, J. V. Z. BLANEY.

SURGICAL NOTES.

1. *Vesica-Vaginal Fistula.*

This operation was performed on the 24th Sept., with the assistance of Profs. Miller and Ingalls and Dr. Durham, on a woman, 24 years of age, delivered of her first child by instruments, above four months previously. The fistula was large enough to admit the finger into the bladder. The vagina was drawn into bands and contracted in different directions, particularly at its orifice.

The operation was performed in the manner used at present. We have been in the habit of using the lead wire for patients long before Dr. Sims performed his operation, and as it always succeeded in favorable cases, we were not disposed to abandon it.

However, in this case we used the silver wire, and found it to answer in every respect as well as the lead, and in one important particular, better. It remains longer in the tissues without producing ulceration. Five stitches were used, the needle being introduced by the instrument of Matthieu, instrument maker of Paris, (whether invented by him or not we are unable to say.) Although the catheter left in the bladder was once obstructed, and once drawn out by accident, the operation succeeded perfectly, and three weeks after the operation the opening was closed, but the sphincter did not resume its function. There was also paralysis of the left foot, which dates from the time of her delivery.

2. *Resection of the Knee Joint.*

In the No. of this Journal for July, 1858, we reported a case of this operation on a boy for caries. In the No. for June, 1858, the sequel and ultimate result of that case are given. It was entirely successful in preserving a useful member.

About the first of March last, we performed the operation on a boy about twelve years old, for caries. This was an unfavorable case on account of the extent of the disease, and from the boy having had previously a fracture of the femur of the side affected, which had united with considerable shortening. We propose to give the result of this case at some future time, when the usefulness of the member shall have been fully ascertained. We have already referred to it in a note to the discussion of the Society of Surgery of Paris, on the subject. At present we are able to state that the boy is in good health, that full bony union and in good position has taken place, and there only remain these small fistulous openings, through which a few drops of pus are discharged daily.

On the 5th of October, 1859, we performed resection of the knee for ulceration of the cartilages and disease of the bone, at the City Hospital, in presence of the medical class. Two and a half inches of the femur and the articular surfaces of the tibia were removed. This patient was much reduced, and after the operation was greatly depressed, but reacted the third day. At present he is doing well, the wound of skin is healed, except at one point; he suffers no pain, and there is but a small discharge of pus, which is healthy.

3. *Congenital Absence of the Vagina, with imperfect development of the Uterus.*

Since the report of cases of the No. of this Journal for July, 1859, we have been consulted in behalf of three patients affected with this congenital defect.

On one of these the operation was performed, Sept. 24. Professors Miller and Ingalls assisted. The patient was twenty years of age, and had been married three years.

There was full development of the breasts and external organs of generation. Pain occurred at regular monthly intervals.

By examination *per rectum*, a body was felt in the situation of the uterus, having the characters of that organ when imperfectly developed. The vagina was closed at the orifice and throughout its whole length. The operation was performed in the manner described in the article referred to. No difficulty was found in forming a passage sufficiently large to receive a large sized oval pessary without opening the bladder, rectum or peritonæum.

No dangerous effects followed. The final result cannot as yet be judged of, but will be reported when sufficient time shall have elapsed to enable a correct judgment to be formed. In the meantime appearances thus far confirm us in the opinion heretofore expressed in favor of this operation.

PROSPECTUS OF THE CHICAGO MEDICAL JOURNAL FOR 1860.

This Journal will be continued in its present size and form. It will embrace—

1. *Original Articles*, of value; communications from former contributors, and others are earnestly solicited.
2. *Book Notices*, embracing such mention of all important works as will enable our readers to form a correct estimate of the value of each.
3. *Selections* of interest from American and foreign journals.
4. *Editorial* on subjects demanding notice.
5. *Miscellaneous Medical Intelligence.*

It will be the object of the editors to make the Journal valuable as a scientific and practical work, rather than a medium for discussion of medical politics.

We must here invite the attention of our subscribers to the importance of remitting our dues promptly. While a large number have already complied with our terms, there are, we regret to say, still many, well known to us as honorable and responsible gentlemen, who remain indebted to the Journal for one or two year's subscription. We respectfully and urgently solicit of these their immediate attention to this subject.

Terms, $2 per annum, payable in advance; if not paid within three months from the commencement of the year (April 1, 1860), the price will be $3.

The Surgical Clinic of the College will be held on Saturday afternoon of each week at the College.

THE CHICAGO

MEDICAL JOURNAL.

VOL. II. DECEMBER, 1859. No. 12.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

CASES OF EXTIRPATION OF THE PAROTID GLAND AND OTHER GLANDULAR TUMORS.

BY DANIEL BRAINARD, M.D.,

Professor of Surgery in Rush Medical College, Surgeon of the U. S. Marine Hospital, of the City Hospital, Chicago, etc.

The possibility of removing the whole of the parotid gland by operation is hardly called in question by intelligent surgeons. Indeed, it is, at the present time, difficult to understand how it should have ever given rise to the discussions which have been witnessed on the subject. Might not the possibility of removing the whole of the thyroid body, or of lower jaw, be denied with equal reason.

Allan Burns seems to have been the first to attempt to prove its removal impossible. His reason was that where the gland and all its ducts were fully injected with mercury, it could not be dissected out; the mercury escaping at numerous points. Without having made the experiment, I can easily believe that this is so. But as is remarked by Vidal, the ducts may be opened, yet the gland removed. Besides, the mercurial injection, by filling all the gland, enlarges it, and renders the pressure on the walls of the fissure containing it much greater than in the dead or living subject not injected. Some who were forced

to admit the removal of the gland, still contend that it has been done rarely, and deny that most of the cases reported as such refer to the gland at all. Velpeau, in his Operative Surgery, and Beclard, in his thesis, seem to cast doubt upon all those cases in which no great hemorrhage occurred, and in which the face was not paralyzed, or in which the movements of the muscles of the face were restored after having been lost. Yet, in many of the cases whose validity is not disputed, there was little hemorrhage and no ligatures applied; and in his report to the Imperial Academy of Medicine, Oct. 26, 1858, M. Malgaigne admits that "in certain exceptional cases, on account of anomalies shown by dissections, the parotid gland may be completely removed without wounding the external carotid artery or the trunk of the facial nerve." This conclusion was sustained by the Academy. M. Naegale, as quoted by Velpeau, affirms that in the dead subject the gland may be dissected away without wounding the trunk of the nerve, and that he has removed it in the living without causing paralysis.

For myself, I should look with suspicion upon all cases where the external carotid artery is not divided, and those where the face is not paralyzed; but am sure that when the gland is attacked from below, as in McClellan's cases, this artery is often torn across and does not bleed; and I see no reason to doubt that the development of the gland may, in many cases, diminish the size, or even obliterate the artery by pressure, as happened in a case of Heyfelder. It seems certain that the hemorrhage from removing enlarged lymphatic glands is quite as great as that from extirpation of the parotid. I am not prepared to say, in regard to the restoration of the movements of the face, how far this may be due to the action of other nerves with which it is known the muscles of the face are supplied. Mr. Fergusson says that in a case in which he divided the facial nerve, the paralysis became, after a time, much less conspicuous than at first.

The entire removal of the gland has been proved by dissection, for surgeons have unfortunately lost their patients and made post-mortem examinations, as happened to Lisfranc and Beclard. Where the body, angle, ramus and condyle of the jaw

have been removed, and the surface of the mastoid process, the glenoid cavity and tubercle of the temporal bone scraped, as performed by me in a case published in the *Amer. Jour. of the Medical Sciences* for Oct., 1853, there is no room for doubt.

I have since repeated this operation twice, and it was once performed by Mr. Hysern, a Spanish surgeon, as quoted by Velpeau.* When the jaw is removed, there can be no difficulty in discerning the tissues in the wound, and detecting any portions of the gland which may remain. But this is not necessary to establish the truth of the reports of the operation. If A. Cooper, Beclard, Larrey, Warren, Mott, McClellan, and the scores of surgeons who, knowing the controversy on the subject, have reported operations of the kind, are not to be credited, it will be difficult to find any reliable authority in surgery. More than this, I believe there is no reasonable ground to doubt that Heister really removed it. Any one who will consult his work, "Institutions de Chirurgie," vol. 3, p. 129, *et seq.* (1770), will find that he describes an operation in which a pound of blood is lost during the incisions, in which death often occurred, and that he criticises Gurengeot who had spoken of it as not dangerous. Heister also says that there were surgeons in his day who denied the possibility of removing the gland.

The case of Jane Sharp, as reported by John Bell, could hardly have been less than the entire extirpation of the organ. He says, "After the operation, I put my finger into the hollow whence the gland was extracted, which I felt to be two inches and a half deep at its lower angle behind the corner of the jaw bone; the carotid lay bare, beating strongly, not dilated; the upper part of the wound was deep, so that the finger touched the pterygoid process forwards and the apophysis cuneiformis backwards; and when she swallowed, the morsel, in passing down the pharynx, pressed upon the point of the finger." †

The late Professor George McClellan, who performed this operation eleven times, used to state in his lectures that the operation is much more easily performed on the living than on

* Operative Surgery, French edition, vol. 1, Supplementary Appendix. This part is mutilated in the translation by Townsend.

† Principles of Surgery, p. 507.

the dead subject, giving as a reason, that the gland being situated in a triangular fissure, whose base is directed outwardly, any considerable enlargement must cause it to rise out of its bed, and draw with it all those prolongations whose removal in a healthy state would be so difficult.

The same fact was noticed by Dr. Randolph and Dr. N. R. Smith, who even say that it becomes pediculated. My own experience fully confirms the views of Dr. McClellan, without, however, going so far in this respect as that of Dr. Smith.

It were easy for me to quote above fifty operations of what I deem undoubted cases of removal of the parotid gland, of which about one-half have been reported in this country, and this without including any anterior to that of Beclard, but it would be of little interest. I shall, therefore, give a report of two cases in which the gland was removed, together with some others in which operations much more difficult were performed for the removal of diseased lymphatic glands. I reserve three cases, in which the organ in question was removed along with the half of the lower jaw (disarticulated), for a subsequent communication.

I have added figures of some of the tumors, taken by daguerreotype, believing they would be useful in aiding the diagnosis, for I have generally noticed that each organ in its morbid growth assumes a form peculiar to itself, and believe that careful attention will enable the surgeon to distinguish between enlargements of the parotid and those of the glands situated in contact with it, by the form and situation alone.

Case 1.—*Removal of the Parotid Gland for Scirrhus—Cure.*

Rebecca Dearsdorff, aged thirty years, of full habit and good health, consulted me, January 30, 1857, on account of a tumor situated between the ramus of the jaw and the lobe of the ear. The attention of the patient was first directed to this tumor four years previously, when only a slight enlargement existed. From that

time it increased slowly and without any pain until within three months, when it has grown rapidly, and now presents the appearance well represented in the foregoing figure. The tumor at this time is firm to the touch and presents some inequalities; the skin over it is not discolored.

Operation.—The patient having been placed under the influence of chloroform, a semi-circular incision was made, commencing behind the lobe of the ear, ending upon the middle of the cheek, and passing over the lower part of the gland. The covering having been dissected up from below, the finger was thrust beneath the tumor, by which, with an occasional touch with the knife, it was readily separated from its attachments.

A circumstance especially deserving of notice is, that *the fissure in which the gland is naturally situated was nearly empty, and the finger passed into it without difficulty.*

During the operation, the portio dura was divided; the external carotid artery was torn accross, and the end of it lay in the lower part of the wound, three-fourths of an inch in length, where it had been drawn out of the tumor. It did not bleed, but, as a precaution, it was tied. The face was instantly drawn to the opposite side on the division of the nerve.

On examination of the cavity, the ramus of the jaw, the mastoid process, the styloid process in its whole length, the stylo-maxillary ligament, the auditory passage, and the ligament of the temporo-maxillary articulation, were fully exposed. At the bottom, the internal carotid artery and the internal jugular vein were distinctly seen and felt. There was no great hemorrhage. The wound was filled with a sponge until this had entirely ceased, when careful search was made by the surgeons and assistants for any remains of the parotid gland. None could be found; all the spaces into which it is said to prolong itself were vacant. The wound was dressed in the usual way, and a full dose of morphine administered.

On examining the tumor, the structure of a salivary gland was distinctly to be discerned on its entire surface. The trunk of the portio dura passed through it. The central part seemed to me very decidedly scirrhus.

The operation did not occupy ten minutes, and was by no

means very difficult. The reason is that during its growth the disease had gradually raised the gland from its bed in a manner which will be readily understood. The patient recovered, and was able to return home in two weeks.

Case 2.—S. S. Millard, aged thirty-five years, consulted me, Nov. 10, 1858, on account of a tumor situated below the left ear. He stated that he had first perceived it about two years previously, and some months since an attempt to extirpate had been made, but the surgeon, finding it deeper and more difficult to remove than he anticipated, desisted, after having cut deeply into it, and contented himself with applying cupping glasses over its surface, by which a small part of its contents had been forced out. The wound cicatrized slowly, and at the time of examination, an irregular surface was presented, red, elastic, free from tenderness and pain. The general health was pretty good.

This tumor was removed, Nov. 13, 1858, at the U. S. Marine Hospital, in presence of the class and attendants. Owing to the cicatrix upon the surface, a piece of the skin was removed. I succeeded in getting under it at the lower part and raised it out of its bed by the fingers. There was considerable hemorrhage. The external carotid, the temporal and internal maxillary arteries requiring ligatures; the two latter on account of the retrograde circulation. The pharynx, internal carotid artery, internal jugular vein, the pterygoid muscles, were distinctly felt and seen.

The patient recovered without accident, and, Oct. 16, 1859, writes that "my face is apparently well."

On examination of the tumor, it was found to be of a narrow-like appearance, with masses firmer and apparently more fibrous than the rest. The facial nerve passed through it. (The side of the face was paralyzed after the operation.) Surrounding the morbid growth, small portions of the parotid gland, in a healthy state, were noticed.

The character of the growth would have left me in doubt as to the malignancy; but the cicatrization after the first incision, and it having remained well for eleven months, leads me to think that it was not cancerous.

In this case, the lymphatic glands removed with the tumor were healthy, and the disease seemed evidently to have originated in the parotid. I therefore took great pains to search for any parts which might have remained, and a small piece upon the side of the face was detected and removed after the principal growth had been taken out.

CASE 3.—*Myeloid Tumor, situated above the Parotid Gland—Operation—Cure.*

John Halbon, of Lodi, Kane Co., Ill., consulted me, Jan. 11, 1859, on account of a tumor situated on the left parotid region, the size and form of which are represented by the annexed figure, from a daguerreotype. This had been discovered about a year previously, and its growth had been without pain or any alteration of the health. The skin over it was not discolored. It was elastic and free from tenderness.

It was removed the same day. A cyst surrounded it, which seemed to be composed of condensed cellular tissue, and the tumor itself appeared to have originated in a lymphatic gland. It extended deeply behind the angle of the jaw, but was dissected out mostly by the finger without division of any important artery. The space left was not like that found after removal of the parotid gland. The patient recovered without accident, and up to the present time there has been no return of the disease.

The tumor, on being laid open, showed a structure somewhat jelly-like, but firmer, of a reddish gray color. I think it to be what is described by Lebert as "fibro-plastic," and by Paget as "myeloid."

CASE 4.—*Enlargement of the Lymphatic Glands in the Parotid Region—Extirpation.*

The following case is presented as an example of those enlargements of the lymphatic glands said to be often mistaken for disease of the parotid gland.

S. S., aged twenty years, consulted me, May 11, 1859, on account of a tumefaction of the left side of the neck. On examination, a glandular enlargement was detected, situated behind and below the angle of the jaw. The appearance is well represented by the annexed figure.

The tumor was firm, lobulated, but did not give the sensation of scirrhus. The skin over it was, at the most prominent parts, somewhat discolored.

History.—The tumefaction had existed over six months, and had been treated but in a very insufficient manner with iodine. The patient's health, in other respects, was good.

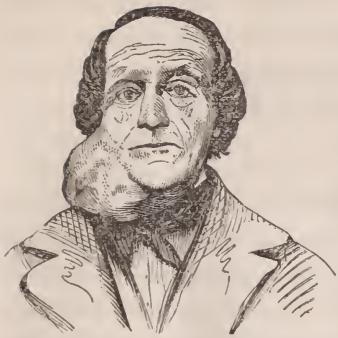
March 11. The tumor was extirpated. It extended deeply down upon the sheath of the great tissues of the neck, under the angle of the jaw, and encroached upon the situation of the parotid gland. It was adherent on all sides, and was dissected out with difficulty, and a part was so invested with the great tissues, that it could not be removed. Three large arteries required ligatures, viz., the facial, lingual, and the trunk of the external carotid behind the jaw. After the operation was finished, the parotid gland was found in its natural situation, but so much scooped out that it was perhaps possible to have supposed that part of it had been removed.

The tumor, on examination, presented no appearance of cancerous tissue, but was probably of the kind called fibro-plastic.

The patient was put upon the free use of iodide potass internally, and lint placed in the wound so as to prolong the suppurative action. He did well, and returned home at the end of three weeks in a favorable state.

Case 5.—*Cancer of the Lymphatic Glands of the Side of the Neck—Operation.*

M. N., aged forty-eight years, consulted me, Sept. 1, 1857, on account of a large tumor of the left side of the neck. The appearance of this tumor at the time is so perfectly well repre-



sented in the adjoining figure that no further description is needed. It was, as may be noticed, nearly half as large as the head, the skin discolored at the most projecting points, and veins ramifying over the surface. There was a sensation of elasticity which almost gave the idea of fluctuation. The patient was emaciated, and had that appearance of sallowness which is so generally observed in malignant disease.

History.—The growth of this tumor had been slow. It was first noticed about two years previously, and remained for over a year indolent and free from pain. Recently, the growth has been very active and the pain excessively severe, particularly in the right hand, arm and shoulder. It was this pain which induced me to give way to the solicitations of the patient and perform an operation for its removal. The well-marked appearances of malignancy, and the constitutional symptoms, rendered the return of the disease certain, and the size and situation of the tumor rendered the success of an operation doubtful. Many patients reported to have died of air entering the veins, or from the effect of chloroform, have undoubtedly sunk from the extent of the wound and the depressing effect of the operation.

The operation was performed, Sept. 20, 1857, at DeKalb Centre, in presence of the physicians of the place and Dr. Winer, my assistant. Nothing peculiar occurred during the operation. It was of great difficulty, very long, and left the patient much depressed. The sheath of the great vessels was denuded at one point, and the brachial plexus of nerves exposed. The patient, however, recovered; the wound cicatrized, and for about four weeks some relief was experienced, but, at the end of that time, the pain returned; there was an inflammation of the throat, attended with great difficulty of swallowing.

He died with these symptoms, without any external appearance of return of disease, about eight weeks after the operation.

ARTICLE II.

ESSAY ON PNEUMONIA.

(Read before the Hendricks County Medical Society.)

BY A. HEAVENRIDGE, M. D., OF STILESVILLE, IND.

Gentlemen of the Hendricks Co. Medical Society:

By reason of the legal operations of our organization, it becomes my duty to read a disquisition on some medical subject. I have chosen for that purpose the investigation of that very common, yet very important, disease, familiar to every practitioner of medicine as Pulmonitis or Pneumonia. I am aware that there has been some discrepancy of opinion among nosological writers, as to the precise tissue or tissues involved in pneumonic inflammation; but the more recent writers confine it to the blood-vessels, air cells and inter-cellular tissue, composing the parenchymatous structure of the lungs. It is in that light I wish to be understood as using the term, thereby excluding all the inflammations involving the pleuritic membrane, except the pneumonic inflammations implicating it.

By inviting your attention to a consideration of so common a disease as that of pneumonia, I am aware that I shall create anticipations of the development of something new either in the pathology or treatment of this disease. I only wish, however, to present my views and convictions, that I may know how they compare with the experience of my colaborators in the healing art, at the present stage of medical science. As brevity is the beauty of bad composition, I shall forego an elaborate recitation of all the various theories and views that have, from time to time, been presented by the different authors upon that subject. As the object of my disquisition is brevity, with perspicuity, I shall only consider three varieties, viz., lobular, lobar and double pneumonia.

I shall, likewise, only consider three stages, that of congestion, hepatization and suppuration. There will, also, be only three complications noticed, as the development of pneumonic inflammation under all other circumstances is merely incidental, and consequently does not properly belong to this place. The

complications here alluded to are those in which the hepatic function is involved, where the system is in a typhoid condition, and that in which the pleuritic membrane is implicated, constituting the respective types, known as bilious, typhoid and pleuro-pneumonia.

It is in the form of lobular pneumonia that the disease, more generally, appears in infants and children under five and six years old; hence, the name of infantile pneumonia has been given it. In this form of the affection, the disease does not attack a whole lung, or lobe of a lung, at a time, but merely small isolated sections throughout the lung. These small patches of inflammation are diversified in size as well as number. There may only be a lobule involved in the morbid action, or there may be many, thus varying the size of the inflamed sections of lung from that of a millet seed to that of a small orange.

These small points of inflammation may serve as nuclei, from which the morbid action may radiate, uniting one with another until they involve a whole lobe or lung, thus becoming lobar pneumonia. It is in this form of the disease that we are most liable to have pulmonary abscess, formed by the small patches of inflammation running through the various stages of diseased action to suppuration, destroying the parenchyma of the lung involved in the *morbi actio*, the suppurating cavity being surrounded by a plastic wall, thus limiting the abscess, which afterwards collapses, cicatrizes, and leaves the lung sound, though contracted.

I do not wish to be understood as saying that abscess is a necessary result of this variety of pneumonic inflammation.

Why it is that this form of pneumonia is more common in children than in persons of more mature years, must be from the fact, that the pulmonary tissue of children is more susceptible of inflammations in general than that of older persons; and also, that the disease spreads more slowly through the tissue, and thus enables us to detect it before the inflammatory process has radiated throughout the entire lung or lobe.

In respect to lobar pneumonia, I am not aware that there is anything peculiar about this form of the complaint except that it attacks an entire lobe or lung at once; and it is likewise in

this form that we have the affection occurring most frequently. In double pneumonia, we have but to consider the inflammation of both lungs, or the entire breathing apparatus of man. In this form of the complaint, the danger is greatly augmented; consequently, the prognosis is rendered more dubious than in either of the other varieties. While upon this point I will say, that this form of the disease seldom passes beyond the stage of hepatization, the patient sinking before the stage of congestion is fairly passed.

In passing to the consideration of the different stages through which the different varieties of pulmonary inflammation run, when not prevented by treatment, or the voluntary resolution of the diseased action, I am aware that I am entering upon the investigation of a subject that admits of mooting to a degree far beyond any information of the physician, or good to the afflicted. In the investigation of the first, or congestive stage of this affection, it is proper to observe, that the inflammation is preceded here, as elsewhere, by irritation of the parts and by a determination of blood thereto, giving rise to a fulness of the capillary blood-vessels of the lungs. Hence, it has been claimed by some pathological writers that this forms one stage of the complaint. But, as all cases of irritation and congestion of the lungs do not pass into inflammation, it forms no part of this disease, but merely remains as congestion, and requires to be treated as such.

We have, then, in the true congestion of inflammation, not only local hyperæmia of the capillaries of the lungs, but an infiltration of the inter-cellular tissue and air cells with the liquor sanguinis, thus evolving that well known and truly diagnostic physical symptom, *crepitation*, which is produced by filling the air cells with fluid, at the same time infiltrating the cellular tissue, and thus compressing the air cells, rendering the ingress of air difficult, labored and rattling: hence the crepitation.

In this stage of the inflammation, the healthy respiratory murmur gradually or rapidly gives place to the crepitation, according as the atttack has been mild or severe. In the lobular form, the healthy respiratory murmur may be heard inter-

mingling with the crepitant rale; and it is chiefly upon this diagnostic sign that we have to depend for our information as to which variety of the complaint may be present. The rational symptoms of this stage are pain in the chest, cough, hurried respiration, a hot and dry skin, a full, firm and frequent pulse, with a white or yellowish-white coat upon the tongue, accompanied with red expectoration; the bowels are generally constipated, though by no means invariably so. The urinary organs are, for the most part, inactive; the urine, when voided, bearing evidence of febrile excitement in the system. By far the most valuable of these symptoms is the expectoration of the characteristic sputa. But even this will not enable us to say conclusively that pulmonitis is present, from the fact, that the same kind of sputa—at least, apparently the same—may be produced from other causes than pneumonic inflammation of the lungs.

But while we are left in doubt as to the real nature of the disease by a mere reference to the rational symptoms, those doubts no longer exist when we come to consider the physical symptoms. And even here percussion affords little or no evidence of disease, as the lungs still remain, if not entirely as resonant as in health, so nearly so that it is with difficulty that the difference can be detected. But when we come to auscultate the lungs, we are no longer left in doubt as to the real nature of the affection. Crepitation is heard, and we say the patient has pneumonia, in a greater or less degree, according to the extent of the crepitation.

In the second or hepatized stage of this complaint, we find the inter-cellular tissue and air cells so firmly impacted with the infiltrating fluid that the air is no longer permitted to enter the air cells. Upon the accession of this stage, the breathing becomes more frequent, the face and extremities of a dingy hue, in consequence of the presence of an excess of carbon in the blood. The tongue becomes brown; pulse frequent and small. On auscultating the lungs, no sound is heard except bronchial respiration; and upon the patient speaking, bronchophony may be heard, in consequence of the consolidation of the lung, affording a more compact medium through which the voice is more readily transmitted to the ear of the auscultator.

It is said by pathological writers that there are two kinds of hepatization,—the *red* and *gray;* but I am of opinion that they are only different stages of the affection,—the red being primary and the gray being secondary, or the gray being the inception of the third or suppurative stage. Should the disease take a favorable turn during the first stage, it passes immediately into the third. Suppuration, with absorption of the effused fluids, commences; that contained within the air cells being changed into pus and expectorated, while absorption carries away that contained within the inter-lobular tissue, and thus convalescence is established.

Should the second stage terminate without abscess, the same thing is effected. When the extravasated fluid fails to be absorbed, abscess is an unavoidable consequence. The degeneration into pus of the effused plastic lymph produces softening and disintegration of the parenchymatous structure of the lungs, and, as a matter of course, abscess is the legitimate result. Should this softening be extensive, the patient sinks, and when the lung is seen, it presents a dark, motley or variegated appearance: and this is said to be gray hepatization. I do not think it possible for a lung, or any part of it, affected with what is known as gray hepatization, ever to return to health; the vitality must inevitably be too far spent for the parts to recover.

In reference to the complications of pneumonic inflammation of the lungs, I will first notice that in which the liver and its functions are involved. It is such a constant concomitant of this form of pulmonary disease that it amounts to almost a necessary part of the disease. The reason why this complication is so persistently present is obvious, when we consider the effect that capillary turgescence of the lungs has upon the liver, producing hyperæmia of the right side of the heart, and consequently of the entire venous circulation, but more especially of the capillaries of the liver. The anatomical structure of the parts is such, that the blood passes directly from the liver to the lungs.

It follows that this passive congestion of the venous capillaries must induce derangement in the hepatic function.

Pneumonia of the lungs has such a direct influence upon the

liver, that I have not unfrequently known hepatitis to be superadded to the pulmonary inflammation. In this complication we have all the symptoms of biliousness added to those of pulmonitis, such as a yellowish coat upon the tongue, a sallow complexion of the skin, with icterus of the conjunctiva, a straw colored and diminished urinary secretion.

In passing to the investigation of the typhoid complication of this disease, we are met by the reflection, that we have to do with a more grave commingling of diseased action than in any form of the disease that has passed under review. In this form of the complaint, we have, in addition to the pulmonary phlegmasia, a loss of the vital forces of the system. An aplastic condition of the blood obtains, with loss of susceptibility and vital tonicity, of all the tissues of the body. Such a state of the system is made manifest by the slow and unsteady action of the muscular movements, coupled with a dingy expression of the countenance, a frequent, soft and easily compressed pulse, with frequent mental aberrations, and, finally, delirium.

Inflammation occurring in such a state of the system must necessarily be more obscure, and less distinctly marked than when occurring in a vigorous and healthy condition of the organism. The inflammation is more disposed to become diffuse. The blood having lost, to a greater extent, its plastic properties, the inflammatory process is not circumscribed by a plastic exudation, so necessary to prevent its spread. Thus, we seldom have lobular pneumonia in typhoid conditions of the system.

The sputa in this condition is more copious, looking as though it was blood and mucus that had been squeezed through the coats of the blood-vessels and mucous membranes into the air cells. The crepitation, likewise, partakes more of the mucous rale.

Further on in the disease, we have developed all the symptoms of typhoid fever, such as a frequent and feeble pulse, continued delirium, sordes and a dry tongue, with tympanitis. The local phenomena are a flat sound, on percussion over the diseased portion of the pulmonary tissue, with bronchial respiration and bronchophony on auscultation.

Except the increased debility, we have little else than a mere

change in the physical symptoms of the second stage of this complaint to constitute the third. The physical symptoms are diminished dulness, with a return of the mucous rale, or rather the establishment of the mucous rale.

Should the inflammation be extensive, this stage of the complaint is extremely dangerous, from the copious suppuration exhausting the remaining strength of the patient, and its filling the air cells with pus, and thus preventing the aeration of the blood.

The third and remaining complication of pneumonia that I propose to consider is extensive inflammation of the pleuritic membrane, which, in fact, is nothing more than a super-addition of pleuritis to pulmonitis, constituting pleuro-pneumonia.

The causes that produce inflammation of the lungs are (like those of all other diseases that are not dependent upon a specific virus or poison) various, and many times not very apparent or easily detected; as mechanical violence, the inhalation of noxious vapors, and catarrhal inflammation of the mucous membrane of the air passages propagated to the substance of the lungs; but by far the most prolific cause seems to be an epidemical influence. What this epidemical influence consists in I am not aware of; the circumstances and materials necessary to evolve such influence are equally obscure; but certain it is that such epidemical influence many times prevails. So observable is this that each epidemic almost always has something peculiar to itself, either in its symptomatology, pathology or therapeutical indications.

Gentlemen, as the therapeutical management of a disease is the part which most interests the physician, and that upon which the welfare and happiness of the afflicted more immediately depends, I hope you will pardon me should I presume upon your patience in giving rather a minute statement of what I consider the best means of filling the therapeutical indications in the disease under consideration.

Before proceeding, however, to give my views upon the treatment of pulmonary inflammation, I propose to look for a few moments at the teachings of some of the writers of the text books. From the teachings of the books in reference to the

treatment of this disease, the novitiate in the *ars medendi* is irresistibly led to the conclusion that all he has to do to cure his pneumonic patients is to bleed them to syncope, and if reaction is well marked, they are to be bled down again; and even a third and fourth full bleeding is recommended should the inflammation not yield. After the physician has bled the patient as long as he can lose blood and live, he must then, according to some of the older therapeutical writers, administer tartarized antimony, in small and increasing quantities, until it would no longer act as an emetic, continuing it until the stomach would tolerate it in enormous quantities; and it is asserted by the advocates of such treatment that the greater tolerance shown by the system for the remedy, the more effectual it is in subduing the inflammation. Should the patient and disease both withstand the lancet and antimony, as above indicated, mercury was then to be tried; and nothing short of mercurialization of the system was considered sufficient. The object of the mercury, I suppose, was to dissolve the plasticity of the remaining blood, and leave nothing to propagate the inflammation.

The more recent writers on practical medicine recommend a less heroic employment of such spoliative measures; nevertheless, they rely on them as their *curative* means. Venesection is employed for the double purpose of diminishing the quantity of the circulating fluid, and thus relieving the labor of the inflamed organs, and also to cut the inflammation short. Antimony was administered with reference to its powerful sedative and absorbing influence upon the system. Calomel was used to dissolve the morbid plasticity of the blood, thus incapacitating it to sustain a phlogistic condition of the system.

The above means, with the addition of opium, blisters, expectorants, and, in the latter stages, stimulants, constitute the treatment of the books. I do not wish to be understood as advocating the condemnation of the foregoing plan of medication in its more moderate and judicious administration: so far from it, I have not only seen others practice it with commendable success, but have done so myself. I am of opinion, however, that at the present time such practice falls short of the present standard of medical science. Such treatment entails upon the

patient a tedious convalescence, requiring weeks and sometimes months to regain complete health. The employment of such spoliative measures implies a reduction of the vital forces of the animal economy to a point below which the inflammatory process cannot exist, which must be wholly inapplicable to those cases occurring in a typhoid condition of system.

In regard to the benefit to be derived from venesection, in acute inflammation of the lungs, I am of opinion that in subjects of a plethoric condition of system there is no single agent that the physician can employ that will do so much in facilitating the cure as the early premonition of a full bleeding. But with our present means of controlling arterial action, I am convinced that the cases must be very rare in which a second blood-letting is indicated; indeed, the number requiring venesection at all is small in proportion to the entire number of cases of lung inflammation. It is a remedial agent, the employment of which is fraught with extreme danger in those cases in which the typhoid character is well marked.

As visionary and chimerical as it may seem, I am of the opinion that after the premonition of blood-letting, in those cases requiring it, and cathartics in case of constipation of the bowels, there are no agents that the physician can employ that will facilitate the resolution of the inflammation so much as a liberal use of quinine and opium. In those cases of a less phlogistic type, with a lax or unconstipated condition of the bowels, I would exhibit the quinine and opium, in full doses, until the constitutional effect of both remedies were produced. At the same time, I would bring the arterial circulation within the point of active secretion by means of veratrum viride.

This condition of the system I should aim to sustain until I had reason to believe that the inflammatory process was stopped, which generally takes place in from two to five days. The amount necessary to be given at once would vary according to the age, constitution and susceptibility of the patient;—from two to three grains of the pulvis opii, with from four to five of the salts of quinia, repeated every three, four or five hours, will generally be found sufficient in most cases of adults;

though should this amount be found insufficient to completely quiet the cough and establish active diaphoresis, more should be given.

I am aware that the argument will be here adduced that the exhibition of such large and repeated doses of opium will dry up the secretions. In reply, I would say that is just what I would expect to do so far as the bronchial secretions are concerned, which is evidenced by the diminished expectoration; but at the same time I would expect to powerfully stimulate the sudorific exhalation.

During the administration of these remedies, the bowels should be acted upon as often as necessary. It will generally be found that after the system is completly controlled by the quinine and opium, that the arterial sedative is no longer required to diminish the arterial circulation.

I will digress sufficiently here to say, that the most prolific cause of failure of this plan of medication will generally be found in a deficient exhibition of the remedies. The *rationale* of the foregoing treatment is obvious on a moment's reflection. The opium allays the cough and irritation; hence, the determination of blood to the lungs ceases. The cough—the mechanical means by which the blood is forced through the pulmonary capillaries into the inter-cellular tissue and air cells—being quieted, we no longer have bloody expectoration. The opium further acts in connection with the quinine in equalizing the circulation, and in producing capillary turgescence of the blood capillaries of the skin. And thus we have diaphoresis, with the excess of blood as far removed from the seat of diseased action as is possible, yet remaining and sustaining the vital forces of the system. Should the opium not be administered so as to completly quiet the cough, the practitioner will fail of accomplishing his object, that of resolving the inflammation.

By thus administering these agents, the circulation is equalized, irritation allayed, pulmonic determination suspended, and consequently capillary tension removed; and the effused fluids no longer meeting with resistance, pass back into the blood-vessels, by reason of the laws of endosmosis. The plastic fluid that may have been poured into the air cells is expectorated,

and the lung passes, by an easy and rapid transit, from a state of active pulmonic inflammation to health, and that, too, without the patient passing through a tedious convalescence of weeks, as when such heroic depletory measures are employed as those above alluded to.

In uncomplicated cases of pneumonia, little else will be found necessary than to premise a full bleeding. Should the patient be plethoric, clear the bowels with an active cathartic, and then administer the quinine and opium in such quantities as to ensure their quieting and sudorific effects; controlling, at the same time, the arterial circulation by means of veratrum viride or digitalis. Should the inflammation be found obstinate in yielding, a blister will be useful in the latter part of the treatment. The system should be controlled by anodynes and tonics until convalescence commences, and then they should be gradually left off. Expectorants seldom afford much benefit in the treatment of the first stage of this complaint, except convalescence should be tedious.

In regard to the treatment of the stage of hepatization, I will only add, that blisters will be found extremely useful, after the depletory and sedative measures have been thoroughly premised. During the stage of suppuration, tonics, stimulants and expectorants are the remedies upon which we must rely to sustain the patient through the exhausting process. As tonics, the various preparations of Peruvian bark are useful, and perhaps none more so than the salts of quinia.

As a diffusible stimulant and expectorant, I have found no preparation so useful as a combination of carbonate of ammonia with a decoction of senega. Sanguinaria Canadensis, in combination with an opiate, I have found very useful as an expectorant in this stage of the disease. Wine and animal broths should be liberally administered, to sustain the patient during the exhaustion of suppuration.

In treating the complications of pneumonia it will be observed, that to make the treatment meet every indication of that very common form of the disease called bilious pneumonia, the administration of a sufficient quantity of mercurial to stimulate the hepatic function will be all that is necessary, in addition

to the plan of medication just indicated. This may be done by a mercurial pill, or a few grains of calomel at night.

In vigorous subjects with constipation of the bowels, I have found a powder, composed of calomel and podophilline, very useful in cleaning the bowels, stimulating the hepatic function, and equalizing the circulation.

In the typhoid complication of pneumonia, I am convinced that blood-letting is an extremely dangerous practice. The amount of local benefit derived from general bleeding will not compensate for the injury done the system while laboring under a disease tending so rapidly to debility, the progress of which can be so little influenced by medication. I should, therefore, depend upon anodynes, alteratives, tonics, blisters and sedatives for a resolution of the local inflammation. Mercury should be given with reference to its moderate constitutional impression, not only as being the best means of managing the fever due to the typhoid state of system, but by its absorbing effect—the best agent we have to resolve the pulmonic inflammation in such a condition of system. In the hepatized condition of the lungs, in typhoid pneumonia, blisters will be found to exert an influence of unusual benefit in discussing the inflammation. As suppuration comes on, tonics, wine, diffusible stimuli and stimulating expectorants should be resorted to; and I have found the administration of chlorate of potassa of benefit in this stage, where there is embarrassment of respiration with flagging of the vital powers, in consequence of an excess of carbon in the blood.

In treating that form of disease in which an extensive inflammation of the pleuritic membrane gives rise to that complication known as pleuro-pneumonia, in addition to the treatment indicated for simple pneumonia, it will only be necessary to add, that after all the depletory measures that are necessary have been premised, and the acuteness of the attack has been subdued, blisters over the seat of the pleuritic inflammation will generally be found beneficial.

Should the pleuritic inflammation become chronic, and persist after the lungs are relieved, counter-irritation, by means of croton oil blisters or tartar emetic ointment, with the internal

administration of iodide of potassium, muriate of ammonia, or mercury, until it affects the system moderately, will generally be found sufficient to complete the cure.

The infantile form of pneumonia — or, rather, pneumonia occurring in infants—will require some variation in treatment, in consequence of the extreme susceptibility to opium manifested during infancy. That remedy will have to be exhibited with caution. But it will almost always be found that they will bear a sufficiency of the medicine to control the cough; and as that is the *sine qua non* to the resolution of the inflammation, it should be given with reference to that result. This, with some other trifling precautionary measures, which the wisdom of the practitioner will suggest, will be sufficient for the management of the complaint as occurring in infants.

ARTICLE III.

A CASE OF SEVERE BURN, TREATED BY WHITE PAINT.—RECOVERY, ETC.

BY O. C. GIBBS, M.D., FREWSBURG, CHAUTAUQUE CO., N. Y.

April 29th, 1858, was called to S. B., a female child, aged 11 years, in consultation with Dr. Hazeltine. The girl's clothes had taken fire while she was in the house alone. She ran into the street, but soon fell, exhausted, before help came to her aid. The whole back, from the hips to the shoulders, a surface thirteen inches wide and fifteen inches long, was completely charred. The back of both arms, from the elbows to the shoulders, was also burned in the same manner.

Being away on business, I did not see the case until after dressings of lint and sweet oil were applied. I saw no more of the case until five days later, when I was called to it. I found the patient in complete prostration, and laboring under painful strangury.

I urged the friends to send for the attending physician, which they utterly refused to do, and I consequently assumed the responsibilities of the case. The dressings were removed, and, on cutting through the charred flesh, I found the texture destroyed

to the depth of at least half an inch. White paint was applied over the whole extent of the burned surface, and quinine and opium, with brandy, was administered internally. The dressings were changed no sooner than the circumstances of the case seemed to render necessary.

On the ninth day, the suppurative discharge became fully established. The bed was covered with oiled silk, and she chose to lay upon the burned surfaces rather than in any other position. The discharges were profuse and offensive, and the patient seemed to lay in a trough of putrefaction. Whenever new dressings were applied, the sufferings were so acute that the patient would shriek most piteously, and earnestly and beseechingly urge that we put an end to her sufferings by death.

Elixir vitriol was occasionally given, with the hope of preventing the poisonous action of the lead; and the dressings, the bed and the floor were freely sprinkled with a solution of the chlorate of lime. This treatment was continued for several weeks, and under the profuse purulent and exhausting discharges, the patient wasted away to almost a skeleton.

The treatment was continued for several months, with only slight variations. Sometimes the white paint dressings were discontinued, and white lead rubbed up with lard was used instead. This substitution was made more with reference to satisfying the friends with the idea of change, rather than because of any expected additional advantage to be derived from it. The elixir vitriol was given only for a short time; and when the exhausting discharges had considerably diminished, all stimulant and tonic medicines were abandoned.

The treatment, indicated above, was pursued for the first six months. After this, at each dressing, the surface of the suppurating sore was freely sprinkled with tannin, and the whole covered with an ointment made in the following manner:

℞ Sugar of lead, ¼ lb.
Linseed oil, 1 pint.
Suet, a sufficient quantity.

Dissolve the lead in the oil, by the aid of heat, and add suet sufficient to bring to the consistence of an ointment, stirring until cold.

The tannin and the ointment were continued until the sore was entirely healed, which occurred at about the end of the tenth month from the date of the accident. The patient is now quite fleshy and in good health.

Many have feared to make use of lead applications to suppurating surfaces, for fear of poisoning from its absorption.

The main point of interest in this case is the protracted use both of the carbonate and the acetate of lead to a very large surface of the body, with no evidence of any absorption of that agent.

The fact that the granulations continued healthy through so long a period, and that so extensive destruction of integument was so kindly and entirely replaced, is sufficient evidence of the propriety of the applications.

There is one point in this case to which I wish to direct attention. The friends were directed not to wash the sore at all. Through the repeated importunities of neighbors, an attempt was made to use soap and water, in cleansing the sore, at one time in my absence, perhaps about three months after the receipt of the injury. The pain it occasioned was extreme, and the sores inflamed considerably, and did not recover their former state for several days. Strange as it may seem, healthy pus is the best possible protection to healthy granulations, and the best security against their unhealthiness.

When new dressings were applied, the sore was quickly and very gently wiped with dry lint only. So fast as new skin was formed, an attempt was made to give it firmness, by occasionally sprinkling it with tannin. The amount of purulent discharge was very great, and the patient's recovery was certainly unexpected.

The proper treatment of burns is becoming a matter of increasing interest, in these days of *hoops*, when accidents from clothes taking fire is of frequent occurrence.

ARTICLE IV.

REPORT OF CASES IN OPHTHALMIC PRACTICE.

BY E. L. HOLMES, M.D., OF CHICAGO.

(Continued from page 652.)

RUPTURE OF BOTH EYE-BALLS BY "GOUGING."

The following is a case of great interest, and is perhaps almost without parallel in the annals of ophthalmic science. The facts in the history of the case, previous to the time it came under my notice, I simply report as related by the patient himself. I cannot, of course, vouch for their absolute correctness. The condition of the patient's eyes, however, seemed fully to confirm his statements.

An Irish laborer, aged 37, from the country, consulted me in August last regarding his eyes. He stated that in March he was knocked down by an Irishman, who seized him with each hand by the hair of the head, and forced a thumb into each eye. After this brutal attack, he was robbed and left for some time without assistance. He was unable to see, and feared at the time that his eyes had "run out," since he felt fluid passing over his cheeks from the swollen and closed lids.

He remained nearly five weeks under the care of a physician, who prescribed poultices and wet compresses locally, and saline cathartics internally. During this time he remained totally blind, and suffered severe pain in and around the eyes. At the end of about five weeks, the pain began to subside, and on opening his eyes, he could distinguish a dim glimmer of light with his left eye. Vision was not improving; but another physician recommended him to take several powders which he prepared for him. After taking these, the patient grew quite unwell; his teeth became very loose, and for nearly three months he was unable to see as well as at first. He had used no collyrium except a solution of castile soap in water.

At his first visit to me in August, both eyes appeared normal in form, and yet, on raising the upper lids, the globes seemed flattened at their upper and inner (nasal) portion. The conjunctiva of each eye was slightly congested. Both corneæ were

perfectly round and transparent. The upper and inner quarter of the right iris had been torn away, leaving the pupil elliptical in form, one side being bounded by the circumference of the cornea, and the other by the remaining portion of the pupillary margin of the iris, which was drawn considerably towards the upper and inner border of the cornea. The radiating fibres of the iris appeared stretched and separated from each other, the interstices being filled, as it were, with lymph, which gave the membrane a blemished appearance. The left iris presented precisely the same peculiar aspect as regards texture; the pupil was situated at the nasal side of the iris, and was much narrower, only about one-eighth of the iris having been torn away. At the upper and inner portion of each globe was a cicatrix, in and around which, imbedded in the conjunctiva and sclerotica, were seen numerous black spots, as if small portions of the iris and the pigment layer of the choroid had become organized in these tissues. From the appearance of the irides, I suspected a displacement of both lenses, and confirmed my suspicions by the simple experiment of Purkinje.

It is well known that if the flame of a candle be placed immediately before the convex surface of the cornea, an upright flame will be produced, which appears to be situated in the anterior chamber of the eye. The anterior convex surface of the crystalline lens also produces an upright image, situated apparently behind the iris. The posterior surface (concave) of the lens produces a larger and inverted image of the flame, situated between the other two. If the candle be moved in any direction in the facial plane, the first two images will move in the same direction with it, while the other image will move in the opposite direction.

By thus placing a lighted candle before the patient's eyes, only one image could be seen, which was the one produced by the cornea,—thus showing that there were no other reflecting surfaces in the eye corresponding to those of the crystalline lens. In neither eye was the iris tremulous, as is usually the case when the lens is removed. The contraction of the fibres of the iris during cicatrization probably rendered them so tense that the ordinary motions of the eye had no effect upon it in

this case, even when the support of the lens behind it was removed. For the same reason, perhaps, light had no influence on the pupil. In the left eye, at the inner border of the cornea, where the iris was deficient, were seen small white pieces of membrane, projecting towards the pupil, which resembled portions of the capsule of the lens.

An examination with the ophthalmoscope showed that the lenses were not floating in the vitreous humor, caused probably by numerous fine black particles, scattered to such an extent through it, that it was very difficult to distinguish even the larger branches of the central artery and veins of the retina; the papule of the optic nerve was scarcely visible. This condition of the vitreous humor was more especially marked in the right eye, with which the patient was able only to distinguish light from darkness. With the other eye he could see sufficiently well to conduct himself in our streets with a little assistance from his attendant. He could not, however, define the outlines of objects, placed either near his eyes or at a distance from them. This loss of vision was caused not only by the abnormal condition of the vitreous humor and absence of the lens, but probably also by injury of the optic nerve and retina.

Although the patient appeared somewhat enfeebled, he stated that his general health was perfect. I simply prescribed pot. chlo. internally, and recommended a mild astringent collyrium for the conjunctival congestion. I also advised him to use plain nutritious diet, to exercise as much as possible in the open air, and apply the cold douche daily to the closed lids.

I have seen the patient three times since my first examination. A few days ago he could see to walk any street without assistance, and could read many of the signs upon the buildings. The right eye was also fast regaining its powers of vision. The vitreous humor was found to have recovered almost entirely its transparency; the vessels of the retina and the papule of the optic nerve were distinctly seen in each eye.

When we consider how delicate an organ the human eye is, and how often it is utterly destroyed by the finest instrument in the hands of the skilful operator, it seems wonderful that a

patient could suffer such terrible violence in *both* eyes, and recover, with the form of *both* organs and the power of vision so well preserved.

Mackenzie alludes to a case, reported by Mr. Dixon, in which each eye had been deprived by a blow not only of its lens but also of its *iris*. A cicatrix existed in each eye when the lens and iris had been forced through the sclerotica. The patient was able to read very well with the assistance of a perforated card and double convex lens.

It is a singular fact that a severe blow may in one instance be received on the eye without injury, and that a slight one, in another, may force the lens out of the eye, performing as it were the operation for cataract by extraction.

In the sixth number of the *London Ophthalmic Hospital Reports* (1859), is found the history of six cases in which the lens had been forced through the sclerotica and retained between this membrane and the conjunctiva. In accidents of this kind the rupture usually takes place at the upper and inner portion of the union of the cornea and sclerotica. The lens may escape entirely from the eye, or it may often be retained as a small tumor beneath the conjunctiva, which is so elastic that it does not always rupture with the firmer membrane under it.

I am permitted to refer to a case which some years since fell under the notice of Prof. Brainard. A grain of shot entering the eye of the patient at the outer angle, had passed through the globe behind the iris, and buried itself in the tissues at the inner angle. The shot had already been removed, and the wound on each side of the globe had healed, leaving a well marked cicatrix. Vision for distant objects was almost perfect. Possibly the lens had been displaced and absorbed, as in certain operations for cataract by division.

It may not here be out of place to state that "gouging" is not peculiar to America, as affirmed by certain foreign travelers. I am informed by good authority that in some counties of England and in Ireland this brutal mode of assault is not uncommon among the lower classes.

[We can assure the writer of the above very interesting paper, that "gouging" is a mode of warfare almost unknown in the British isles. An attendance for many years on some of the most extensive eye infirmaries of the empire would have afforded us ample opportunities of making ourselves acquainted with the fact, if it existed; for, if the practice of such iniquity prevailed there, we could not fail to have observed it. We cannot, however, recollect having seen in Great Britain or Ireland a case of injury of the globe of the eye that could be attributed to violence thus inflicted, and we should almost even be induced to altogether deny its occurrence there, if we had not been aware that Bidloo, in his "Opera Omnia Anatomico-Chirurgica," related, in bad Latin, the following case:—"Vidi, ante sex annos, Londini, virum robustum, cui amba oculi, horrendum in modum protuberabant: quod ad ipsam partium dispositionem, illam genuinam observavi, præterquam quod ipsis pupilla majuscula, cæsius color et insolita esset cum duritie magnitudo: visu tamen utrumque destitutum omni expertus sum; inquirens in causam, accepi, inter luctandum ab adversario suo, ira, gymnasticas, vel luctationis *Anglicanæ*, leges excedente, pollices fuisse oculorum orbitis intrusos hominemque mox, nullo inflicto vulnere, dolore correptum summo, non medicis, non chirurgis; sed visu restitisse orbum oculosque magis magisque distendi atque protuberare, quandoque cum, quandoque sine dolore." We have frequently known the lens to be dislocated by blows on the eye, and yet useful sight has been retained. Larrey has put on record a case illustrative of the amount of violence occasionally exerted, and in which vision was preserved, although the globe was burst, the lens expelled, and the vitreous and aqueous humors had escaped. There was, moreover, separation of the lower part of the cornea from its attachment to the sclerotic, protrusion of the iris, and extensive injury of the appendages of the eye. Yet, unpromising as the case was, the globe gradually refilled, the wound cicatrized, and by the aid of a very convex glass, objects becoming distinct, the man who was the subject of the injury was enabled to pursue his profession as a soldier. In cases of violence to the eye from blows, or even from pressure on its

surface, in the effort to perpetrate "gouging," we should, perhaps, apprehend as much danger to vision from the supervention of amaurosis, caused by the concussion of the retina, or even its compression, as from the rupture of the textures of the organ, or even from the separation of important parts from their connections. A case is related by Beer, in which indulgence in a practical joke thus caused incurable amaurosis from mere pressure. We give it in the words of the author: "Some years ago, I was called to a man, who had previously enjoyed excellent sight, but, a short time before I saw him, had, in an instant, became totally blind in both eyes. He happened to be in a company of friends, when suddenly a stranger stepped behind him, and clapped his hands upon his eyes, desiring him to tell who stood behind him. Unable, or unwilling, to answer this question, he endeavored to remove the hands of the other person, who only pressed them the more firmly on his eyes, till at length withdrawing them so as to allow the eyes to be opened, the man found that he saw nothing, and continued ever afterwards blind, without any apparent lesion of the eyes."—Ed.]

SELECTIONS.

Diseases of the Corpuscles of Blood.

(From the *Medical News and Library.*)

With respect to disease or abnormal metamorphosis of the corpuscles of the blood, and its association with symptoms of fever, numerous observers have described their darker color, and the easy transudation of their coloring matter in typhus. Denis, for example, describes the blood in typhus fever as deficient in fibrin. He says that air had no effect in reddening it; and, on analysis, it was found to contain ammonia. Dr. Armstrong observed the blood in typhus from the temporal artery as dark as that from the veins.

The general appearance of blood in malignant fevers, has been described by Huxham and Fordyce. At the first commencement of symptoms of fever, the blood was sometimes buffed; but the clot beneath was always of a loose texture, scarcely cohering, and very dark in color. If the patient was bled two or three days after the onset of fever, the

blood was found incoagulable, having the appearance as when spirits of hartshorn is added to blood as it runs from the vein, which darkens its color, and prevents coagulation.

In the yellow fever of the West Indies, blood has been observed to be hotter than in health. As fever progresses, it becomes black and thin. Dr. Blair says that, in many instances, the corpuscles were found so much dissolved, that, in several specimens of fever-blood, but few of them could be observed.

It has been found that a diminished amount of carbonic acid is discharged from the blood by respiration in cases of fever; and this fact, taken in conjunction with the dark color of blood, is conclusive as to one, at least, of the functions of the corpuscles being disordered in fever.

Rokitansky, Simon, Perry, and many other accurate observers, all speak of the dark color and changed state of the corpuscles of blood in malignant fever, of the incoagulability of the plasma, and of the staining of the tissues and of the serum by the coloring matter which transudes the corpuscles.

As regards the microscopical appearances of the corpuscles of blood in fever, we hesitate at present to lay any stress upon them; because in persons in health, they very speedily change their figure and outline in a very uncertain manner. Some of them became notched with projecting points, and otherwise changed in outline; others assume globular forms; they are influenced as respects these changes, it would appear, by the temperature of the glass upon which they are received for examination, and by the way in which they are covered by the thin glass. Some are seen paler, and some smaller than others; some adhere closely together in rolls, others float about separately without the least disposition to adhere to their neighbors. All these varieties may be seen in the same small quantity of blood which is alone available for microscopic inspection, especially if the exterior edges of the film of blood be brought into the focus of the microscope.

Notwithstanding these obstacles to the drawing any positive conclusion from the microscopical appearances of the blood-corpuscles in cases of fever, it is quite as likely to be by the microscope as by chemistry that future advances in the pathology of these bodies will be made. For how can any bulky chemical manipulation satisfactorily eliminate results from the plasma from results from the corpuscles? especially if, under the influence of reagents, as we shall show, they throw out matter from their interior into the fluid in which they swim,

and yet preserve their integrity or individuality. "Hitherto, at all events," as Rokitansky has well observed, "chemistry cannot be said to have excelled, as respects the pathology of these bodies, the achievements of a circumspect anatomical survey, notwithstanding the limited resources at the disposal of the latter."

Experiment 1.—Take a slip of glass, such as is used for mounting microscopical objects, receive on it a very small drop of blood, and place close to it with a pipette a drop of any fluid, chloroform, ale, weak sugar and water, etc., and the quantity of the extraneous fluid should not exceed the quantity of blood. Upon now dropping on the two fluids a thin piece of glass, their nearest edges will mingle, but in various proportions.

In these experiments we find the *outline* and the *interior* of the corpuscles of extremely various appearance in the same experiment, but nothing appears thrown out from them.

Experiment 2.—Proceed as in the last experiment, but let the fluid used be sherry wine. The corpuscles, along the line where the blood and wine mingle, will soon begin to throw out molecules around their circumference, many of which pass away into the fluid; others grow out into long tails, which remain attached to the corpuscles, and terminate in a knob. They also wave about in a very singular manner. After some time (half an hour), the tails or filaments become nodulated, and then break away from the corpuscles, and when they have done so, they continue their singular movements in the fluid.

Some years ago, when making observations on the plasma or liquor sanguinis of blood, drawn by venesection in cases of fever and inflammation, we observed in the fluid a vast multitude of minute molecules. (*Medical Gazette*, vol. ii., 1841–42.) And the molecules seen in the experiment here related, are precisely the same in magnitude and appearance as those we saw in the fluid of blood drawn in the cases of fever. Now we believe that the blood-corpuscles do not immediately lose their vital or chemical properties when withdrawn from the body. Therefore, we regard the remarkable forms and actions they exhibit under the influence of sherry wine, as phenomena of a species of reaction, which, amongst multitudes of them, is various or unequal, hence the various appearances presented. In some, the resistance offered to the extraneous fluid is more easily overcome than in others.

We have frequently examined with the microscope blood taken from persons affected with scarlet fever, with reference

to the appearances in the plasma, and have always noticed the following facts. The colorless or plasma corpuscles are much more numerous than in persons in health, and especially so if the blood be drawn from the skin as the fever is passing off, and the epidermis beginning to exfoliate. They are of different sizes and present different appearances. In the open spaces between the rolls of red corpuscles, irregular masses of granular matter and numerous free molecules are seen floating in the fluid.

In cases of diphtheria, we find that the plasma presents the same appearances as are seen in scarlet fever. Formerly we supposed the free molecules observed in the plasma of blood, drawn in cases of fever and inflammation, to be derived from the colorless corpuscles; but now that we have seen them thrown out by the red corpuscles, there is actual proof that these corpuscles, in their reactions upon extraneous substances, do themselves throw off matter into the fluid in which they swim. The appearances, then, which we have seen in the fluid of the blood in cases of fever, and the behaviour of the corpuscles in the experiment we have related, appear to corroborate our conclusions respecting the excretions of the corpuscles passing into the plasma, and the association of these excretions with phenomena of fever.

Before proceeding with our argument, it will be convenient now to refer to some collateral incidents which require our notice.

First, it may be objected to our proposition respecting the antecedent of fever, namely, disorder or disease of the blood-corpuscles, that in venosity of blood, where a poisonous element of the corpuscles fails of being discharged by respiration, the symptoms are those of brain disturbance, and not of fever. In *morbus cæruleus* there is no fever necessarily.

To this objection it may be replied, that the presence of a venous quality in the corpuscles does not imply disorder or disease in them, in the same way that it is concluded to arise from miasms in the air. The substance—carbon or other matter—which gives to the corpuscles their venous character, is a substance natural to them, an essential ingredient of their composition in certain parts of their course in the circulation. Therefore, it is to be expected, it would occasion no unusual reaction on the part of the corpuscles themselves, though the brain suffers; whereas, a poison from the air may be presumed something quite heterologous to the corpuscles, and doubtless they react with more energy against a foreign injurious matter, than against anything which is a part of their normal composition.

In cases of blood-poisoning through the stomach, such as drunkenness from alcohol, narcotism from opium, and salivation from mercury, the locality and character of the symptoms point out which organ it is that suffers first or most from a particular poison diffused through the plasma. And if in these examples fever be absent, the argument is, that the parenchymatous organ is affected before the corpuscles of the blood, fever appearing when they partake of the disorder.

In cases of blood-poisoning through the lungs, on the contrary, the symptoms begin with fever, and the argument is, that the corpuscles of blood are here affected first, before the plasma or any of the local parenchymata; fever denoting an abnormal metamorphosis of the corpuscles.

A venous state of the corpuscles of blood is not an abnormal metamorphosis. The condition comprehended in the term venous is one natural to them. Misplaced venous corpuscles disorder the brain; but fever does not appear, because the venous state is natural to the corpuscles. The absence of symptoms of fever, when venous blood circulates arterially, is therefore no valid objection to the proposition we are arguing.

Again, we have hitherto purposely abstained from any reference to the brain or nervous system as causes of fever and inflammation, not because we underrate their powerful influence over blood and the secretions, but because so important a part of our subject requires a special consideration, which we can here but briefly indicate.

It has been argued in the former lecture, that the elements of the parenchymatous organs and the corpuscles of blood have the common properties of other living cellular bodies; and among these are properties of affinity, which differ in relation to different substances. And there can be no doubt that the corpuscles of the blood, as respects the various substances they encounter in their course during circulation have much more intimate relations with (or a greater affinity for) some than others. For example, in the lung, a special reciprocal action takes place between the corpuscles which are within the vessels and the air which is outside them. And, as if to facilitate this action, the coats of the bloodvessels in the cells of the lung are reduced to an extreme degree of thinness.

Now, it may be argued of any other special organ, where the coats of the capillary vessels are reduced to a still greater degree of thinness than in the lung, that they are so for a similar purpose. Thus, in the brain, an organ very largely supplied with blood, the coats of the extreme vessels are so thin

that we fail to trace them in all their various ramifications; indeed, so entirely are they altered that the elements of the organ have but a slight coherency. And, unless the contrary can be shown, we may infer this disappearance of the ordinary properties of bloodvessels to be for the purpose of removing all obstacle to the closest possible contact between the corpuscles of the blood and the parenchyma of the brain. This inference is corroborated by the fact that the brain is the organ specially affected by an abnormal circulation of venous corpuscles. That is to say, the brain is the organ which first detects the presence of an abnormal venous quality in the corpuscles.

If, then, we may regard the thinning away of the coats of the capillaries of the brain as facilitating a contact action between the corpuscles of blood and the substance of the brain; and if, moreover, we are able to appeal to the known effect of venous corpuscles upon the functions of the brain denoted by drowsiness, stupor, delirium, and coma, as proof of a special action between the brain and the corpuscles, then we may claim the constant occurrence of similar cerebral disturbances in fever as corroborative of the view which bases phenomena of fever upon abnormal metamorphosis of the corpuscles of blood; the brain—to use a chemical phrase—being the test of the condition of the corpuscles.

All the functions of a living body may be comprehended as a series of actions and reactions; and, if it be admitted that the corpuscles of blood do perform a special function in the brain, there must necessarily be reaction from the brain upon the corpuscles.

Case.—A young married woman, aged 19, was delivered of her first child. The labor was natural, and she went on favorably until the fourth day from her confinement, when her husband stayed out late at night, and returned home drunk from a fair, very much knocked about. By this she was thrown into a state of great nervous excitement. Very shortly after, she was seized with a numbness of the legs and shivering, and then with pain in the head and wandering of the mind. The secretion of milk was interrupted; the skin became hot and dry; no sleep could be procured; and the pulse beat 120 in the minute. The wandering of the mind passed into furious delirium, and all the symptoms of fever and excitement continued for several days. It was only by judicious medical treatment and careful nursing that the disorder was subdued on the seventeenth day.

In this case, we argue that the fever arose, not immediately from the nervous shock, but from disorder of the blood-corpuscles; and, as our researches have led us to interpose dis-

temperatures of the fluid of the blood between errors in diet and inflammation, and disorder of the corpuscles of blood between aerial miasms and fever, so analogously of mental emotions and nervous shocks, when they occasion or aggravate fever or inflammation, we conclude they do so by disordering, or adding to the disorder, of one or other, or both parts of the blood. Errors in diet do not produce inflammation, unless the fluid of the blood be distempered; also a miasmatous air does not produce fever, except the blood-corpuscles be affected; so, too, great convulsions and loss of consciousness (in epilepsy, etc.) pass away without fever, if the blood be not affected. The close sympathy between states of the corpuscles of blood and the brain, then, supports our proposition that symptoms of fever and the generation of poisons in the blood are to be based upon disorder of the corpuscles.

The Structure and Functions of the Brain.

(From the *Cleveland Medical Gazette.*)

Dr. Luigi Meschi (Gazz. Sarda, 1—22, 1857,) offers the following views touching that most interesting, and still little explored, field of medical investigation, the brain and its physiology.

According to the difference in the cerebral structure, the entire animal kingdom is to be classified as follows: 1. Ganglia forming the termination of centripetal and centrifugal nervous fibres, as in the Acalephs and Helminthes. 2. One or more central ganglia, receiving, besides their own ramifications, fibres from other ganglia, forming in that way a two-fold system: peripheric and central, or sympathetic and cerebral ganglia. The number of the former increases with the development of the latter; the extreme is reached in a single part of central ganglia. Molluscs, Cetacea. 3. Two pairs central ganglia: an anterior and a posterior one, olfactory and optic, with hemispheres between them, and another ganglia, the cerebellum, resting on the spinal marrow. Fishes, Reptiles, Birds. 4. Cerebral ganglia covered by the hemispheres, for both of which the names of enveloped and enveloping ganglia are proposed. The Corpus Callosum only unites the hemispheres, and has not the specific properties of a ganglion. The cerebellum exhibits a similar arrangement: the two hemispheres, connected with each other by the pons Varoli, vermis superior and vermis inferior, cover the corpora rhomboidea as interior ganglia. The corpora quadrigemina, possessing the character of both the

forms of ganglia already described, and exchanging fibres with the thalamus as well as with the cerebellum, are to be considered as intermediate ganglia.

There is a current in the nervous fibres, but that in the sensitive nerves moves in an opposite direction to the one in the motory nerves. The current of the sensitive nerves either reaches the brain and is there perceived, or it is diverted by a ganglion in its way and transported to motory fibres, for the ganglia manifests an attractive as well as a repulsive action on the nervous current, combining a centripetal and a centrifugal pole analagous to the positive and negative electrical poles, the one connected with the sensitive, the other with the motory conductor. But both these poles are also found in the nervous fibres, be these sensitive or motory, and what is true in electricity, also applies here: The opposite poles attract each other, etc.

Now, with the centripetal current three things may happen: 1. If there is no ganglia in the way, the current reaches the brain and is felt; or, 2, the current meeting one or several ganglia is forced by them upon the motory fibres, and therefore not felt; or, 3, a part only of the current is deviated by the ganglia, while the other part goes on to the brain and produces there a sensible impression, although in a slighter degree. This explains, why the vegetative organs, dependent upon the sympathetic nerve, are insensible as long as nothing unusual takes place; these very organs, however, send a very perceptible current to the brain, as soon as any irritation increases the strength of the current; inflammation of the stomach or bladder, for instance, produces such an increase, apparently by increasing the energy of the nerves.

The principle working in the nerves results in some way from the blood; at least we have to suppose this, in order to explain the effects of the nerves that are connected with the heart. Cutting the vagi, we suppress all operation exercised on the heart by the fibres of the accessory nerve and surrender that organ to the influence of the sympathetic fibres from the lower ganglia of the neck. The nervous fluid, no longer allowed to extend its motions through the spinal marrow and the brain, is concentrated in those sympathetic fibres, and consequently the energy of the heart is increased, at least for some time. Under the influence of the accessorius alone, the cardiac ramification of the sympathetic nerve being separated, the motions of the heart are, on the contrary, diminished in frequency as well as force, for obvious reasons.

The brain, forming merely a combination of ganglia, cannot

possess sensibility or motory influence any more than the ganglia. The brain as a whole, is in that respect even less powerful than the ganglia, and what little of sensitive influence is allowed to pass to the brain, is soon spent in the central parts of it, so that little or nothing of it is left to spread over the cerebral convolutions. The effect of the sensitive currents on the brain thus being destroyed, certainly no motory impetus can result from them. To explain, therefore, the many motory effects evidently emanating from the brain, the adoption of another principle, working on the brain, is inevitable. This principle is the soul, the great cause of all arbitrary animal action, free, conscious, intelligent. The soul resides principally in the convolutions of the brain, and her action is manifested in four forms: consciousness, instinct, intellectuality and arbitrariness. The soul is the independent operator, and the ganglia, with their more automatic influence, produce in their combination every manifestation of animal life.

We cannot follow the author any further in the particulars of his explanation, nor do we at present feel inclined to enter into any special criticism of his doctrines. Waiting for the result of more extensive explorations, now instituted, and based upon skilful experiments, we do not deem it worth while to refute at length the errors committed, either by a perverse application of facts, or by illogical and unscientific conclusions drawn from correct observations; especially in reference to the vital action of the brain. While we may agree with Dr. Meschi in taking the brain as a more developed, or rather more highly organized ganglion, we must draw, from this very supposition, the inference of a more extended power in the central parts of the nervous system. Why is a man's intellect disturbed even to raving madness, by the smallest piece of bone pressing the brain, or by a diseased condition of that organ, if the soul as independent source of the intellect, is not the expression of the vital energy of the brain? That wonderful complex of nervous structures is certainly not the mere residence of the soul, enclosing it just like the shell that is secreted from, and formed around, the body of the snail. All the facts that we have, bearing upon the relation existing between brain and intellect or soul, rather lead us to the conclusion of the brain being the basis and the source of every intellectual action. The explorations already referred to will, undoubtedly, give us some more light upon this highly important point, and we shall then, probably, find an occasion to express our own views more fully, and to canvass the whole matter more thoroughly.

C. A. Hartmann.

Transactions of the New Hampshire Medical Society, 1859.

The report of the Committee on Surgery, by W. D. Buck, M.D., contains several interesting points of practice. Among these we notice a suggestion to place the long splint on the outside of the sound thigh, in fractures of that part, when the extension or counter extension has produced excoriation of the perineum, or on the ankle on the side of the fracture. Dr. Buck recommends the use of adhesive plaster for extension in these fractures, attributing its first use in this way to Dr. Josiah Crosby, of Manchester, N. H., who, he says, is called "Sticking Plaster Crosby." We hope the name may adhere.

The following passage on amputation at the shoulder joint is interesting. The suggestion to remove the head of the humerus in order to facilitate the tieing of the artery, we do not remember to have seen elsewhere.

Amputation of Shoulder Joint, by Josiah Crosby, M.D.—Within the last fourteen years I have amputated the shoulder joint four times, and removed the head of the humerus once. The first case was gun-shot wound; the second and third rail-road accidents; in the fourth the arm was caught in the gearing of a flouring mill. In all these cases except the last, the bones were crushed to the head; in the last, the one caught in the mill, the bone was uninjured high up, but the brachial artery was completely severed high up. The integuments in three of the cases were so destroyed that it was impossible to get clear cut edges for dressing. In all of the operations the head of the bone was disarticulated and removed from its socket first, then the artery was easily reached and secured. The soft parts were then trimmed with as much economy as possible, to give covering to the wound. The first three cases made a good recovery. In the fourth case, an attempt was made to save the arm, but on the second day there was manifestly such a want of vitality that the operation was performed, but with no advantage to the patient, who died on the fourth day from the injury.

Perforation of the Femur, by Josiah Crosby, M.D.—Mr. H., aged thirty-five, when ten years old, had necrosis of the lower end of the femur, near the external condyle. During the progress of the disease, he fell and fractured the bone at the place affected. Both recovered together, and he had apparently a good limb, until March, 1857, when he was attacked with pain

in the seat of the old disease. The pain intermitted, so that for days he would be perfectly free from it, when it would return, increasing in severity and duration, until he was obliged to relinquish his business (a machinist) and devote himself entirely to the care of his limb. The pain became so severe that he was obliged to resort to large quantities of morphine and ether to get any rest. His flesh wasted; the whole limb was much smaller than the other; no swelling and but little tenderness, and that only when considerable pressure was made on the seat of the pain. A great variety of treatment was resorted to with no permanent benefit, and with very little temporary relief. Several surgeons were consulted, but all to no purpose; the patient constantly grew worse until he and his friends were fearful that he might lose limb or his life.

I visited him on the fourteenth of January, 1858, and proposed perforation of the bone, Dr. Hubbard, of this city, and Dr. Paige, of Candia, his attending physician, being present. The operation was performed the same day. An incision one inch long was made on the outside of the leg, about three inches above the articulating surface of the external condyle, and, at the suggestion of my friend Dr. Buck, the perforation was made nearly through the cancellated structure, with a three-eighths of an inch gouge bit, placed in a common bit-stock. The instrument perforated the bone with perfect ease in a half a minute. The bone appeared perfectly healthy, and no pus appeared. The wound was kept open by lint to prevent immediate union. The pain ceased a few days after the operation was performed, and the patient's appetite soon returning, he rapidly recovered, and is now enjoying good health with apparently a sound limb.

We had suggested the sub-cutaneous perforation of bone many years since, with the instrument in use for ununited fracture, but have not found occasion to put it in practice. In commencing abscess, if used early, it would seem to promise much.

TRANSLATIONS.

ON INFLAMMATION OF THE CERVICAL LYMPHATIC GANGLIA. (*ADENITE CERVICALE.*)

BY H. LARREY, MEMBER OF THE COUNCIL OF HEALTH OF THE ARMY, ETC.

We translate the following summary of a valuable memoir on this subject, read before the Academy of Medicine, Paris, 21st May, 1849, by the author:

"This disease is very frequent in the army, and therefore well known to military surgeons."

"It has been too exclusively regarded by most authors, ancient and modern, as allied to scrofula."

"It is in fact often scrofulous, but is also oftener due to other general causes, such as the influence of atmospheric localities, regimen, habits, particularly such as are inherent in the life of the soldier."

"It is often produced by local causes, such as affections of the scalp, face, ears, mouth, etc., also by mechanical compression of the neck."

"Its seat is in the parotid, sub-maxillary, mastoid, sub-hyoid carotid and supra-clavicular regions."

"It may be acute or chronic, and present variable local characteristics, without necessarily giving rise to general symptoms."

"When uncomplicated, it is generally easily diagnosticated."

"Its course is sometimes rapid, oftener slow, and it often lasts longer than the cause which has produced it."

"It may terminate by resolution, or by suppuration and ulceration, or by induration and degeneration. Its anatomical characters are consequently very variable."

"Its prognosis is often unfavorable, so much so as to require discharge from the military service."

"It requires, according to its causes, forms and terminations, divers means of treatment — preventive, curative, hygienic, medical and surgical."

"It sometimes requires extirpation, from considerable hyper-

trophy, chronic induration or degeneration, and the operation, although sometimes delicate and difficult, is in these conditions generally followed by favorable results."

PROCEEDINGS OF MEDICAL SOCIETIES.

BROWNSBURGH MEDICAL SOCIETY.

In accordance with previous notice, the physicians convened at the Odd-Fellows Hall, in the village of Brownsburgh, Ind., July 21st, 1859, for the purpose of organizing a medical society.

On motion, Dr. D. H. Oliver was called to the chair; Dr. Ross C. Russ chosen Secretary *pro tempore*.

Dr. D. H. Oliver, on taking the chair, made a brief, though quite a comprehensive, speech to the Society.

A constitution and by-laws were then presented by the committee appointed for that purpose at a previous meeting, after considerable discussion, were amended, and unanimously adopted, as the Society deemed necessary, etc.

An election for permanent officers being the next thing in order, resulted in the election of the following named gentlemen, for one year, viz: Dr. H. H. Moore, President; Dr. William J. Hoadley, Vice-President; Dr. Ross C. Russ, Secretary. Drs. A. J. Graham, T. P. Seller and M. Clark Russ, Censors.

Drs. J. P. Graham and D. H. Oliver were appointed by the President essayists for next meeting.

On motion of Dr. D. H. Oliver, that the Secretary furnish the *Cincinnati Lancet and Observer* and *Chicago Medical Journal*, each a copy of the proceedings of this meeting, that they might be published at the request of the Society.

On motion, the Society then adjourned, to meet in Brownsburgh on the first Thursday in January next, at 10 o'clock A. M.

H. H. Moore, *President*.

Ross C. Russ, *Secretary*.

MISCELLANEOUS MEDICAL INTELLIGENCE.

ANEURISM OF THE RIGHT CAROTID AND SUBCLAVIAN ARTERIES; LIGATION OF THE ARTERIAL INNOMINATA. BY E. S. COOPER, M.D., SAN FRANCISCO.

The October number of the *American Journal* contains a report of this case, if report it may be called, which omits nearly every important fact connected with the history of the case, the seat and extent of the disease, its effects, etc.

Dr. Cooper states, "I long tried to make room for the application of a ligature to the Arteria Innominata without removing more important structures." (?) "Finding this, however, almost, or quite impossible, I proceeded to remove the summit of the sternum and the sternal extremity of the clavicle." "The patient gradually sank until the 9th, when he expired." Among the *post mortem* appearances was observed a tuberculization of the right lung.

We notice this operation, to say that it is one which cannot receive the approbation of any judicious surgeon.

Ligature of the arteria innominata has been performed nine times. In all the result was fatal, viz:

1. Dr. Mott, May 11, 1818.—For aneurism of the subclavian and carotid arteries, extending to the innominata. Death the twenty-fifth day, ferny coming from the distal side of the ligature.

2. Graeffe of Berlin, for aneurism of the subclavian artery. Death the sixty-seventh day from hemorrhage.

3. Bland of Sidney, New South Wales. Death the eighteenth day, from hemorrhage from the subclavian artery.

4. Richard Wilmot Hall, for aneurism of the subclavian artery. Death in five days, from hemorrhage.

5. Lizars, for aneurism of the subclavian artery. Death the twenty-first day.

6. Kuhl of St. Petersburg. Death the third day.

7. Arena, surgeon of the Emperor of Russia. Death five days after the operation.

8 and 9. Bugalsky. Details not given. Death soon after the operations.

No notice of the situation of the aneurism, or the state of the artery, are given in the autopsy.

Cases of this kind, published without comment, and thus partly endorsed by journalists, have given rise to the term "audace Americaine," used by Trousseau. If editors, in giving currency to this and similar reports, would express their opinions of the propriety of such operations, it is likely that fewer would be done, and the responsibility be thrown upon the individuals who, without any prospect of benefit to their patients, think fit to resort to them.

PROFESSOR PAUL F. EVE.

This distinguished Professor in the University of Nashville has been making a tour in Europe, where he has written a series of spirited letters to the *Nashville Medical Journal.* Everywhere, at Milan, Turin, Paris, London, Prof. Eve seems to have been received with the attention due to his position. He was elected corresponding member of the Imperial Academy of Medicine of Vienna, and returns, doubtless, with mind enriched and spirit refreshed, to the duties of his course and practice.

Dr. S. W. Butler, senior editor of the *Medical and Surgical Reporter*, Philadelphia, has been appointed Chief Resident Physician to the Philadelphia Lunatic Asylum.

We are pleased to learn that Prof. Blackman, of the Ohio Medical College, has in preparation a work on surgery, intended as a text book for students, and a guide for practitioners, which will be issued from the press in season for the courses of 1860.

Prof. Blackman has many qualifications for the task, among which may be particularly noticed a good knowledge of his profession, an acquaintance with the standard authors, and a mind which will take pleasure in collecting and arranging the

scattered and valuable contributions of American surgeons, instead of neglecting, ignoring or garbling them, as is oftener done by writers of systems of surgery. We make this statement principally on the evidence afforded by his notes to Velpeau, by Mott, which afford proofs of his industry and impartiality, and a perusal of his contributions to periodical literature, which are distinguished by careful attention and just appreciation, and in which statistics of operations are frequently presented. We think the appearance of his work will be anticipated with pleasure.

We are informed that a new medical journal will soon be issued in Cincinnati, under the editorial management of Professors Lawson and Blackman.

The character and qualifications of these gentlemen are a guarantee that it will be worthy of the best portion of the profession in Cincinnati, which has hitherto been greatly in need of a suitable organ.

We learn from the *Boston Medical and Surgical Journal*, that Dr. Eli Ives has declined the office of Junior Secretary of the American Medical Association. President Miller has appointed Dr. Stephen G. Hubbard of New Haven, to fill the place. Dr. Eli Ives is 81 years of age, and the appointment was probably *intended* for Dr. N. B. Ives. It was offered him by the President, but on account of ill health he declined it, and Dr. Hubbard received the appointment.

We never doubted that the profession of New Haven would give the Association a hearty welcome, but when, in announcing that though Connecticut was not represented in the meeting at Louisville, the next was appointed at New Haven, we remarked that the profession of that city would be taken by surprise, one or two of the journals took us to task for intimating such a thing. The above item will show how bunglingly the affair was managed. It would be a little singular if the appointment of an octogenarian as *Junior* Secretary of the Association had not caused a little surprise.

We mark the above extract from the *Medical and Surgical*

Reporter, for the purpose of calling attention to a movement initiated at the last meeting of the Illinois State Medical Society, looking to the establishment of a rule that, at future meetings of the National Association, the presidents should *not* be chosen from among the members of the profession of the State or city in which the meetings may be held.

This movement originated, it is understood, with a single ambitious individual, and should it be followed up, may be regarded as a singular additional compliment to the profession of the city of New Haven, and the State of Connecticut.

THE CHICAGO CHARITABLE EYE AND EAR INFIRMARY.

During the six months, ending Nov. 1, 1859, *one hundred and eleven* patients have been treated by the surgeons of this Institution, making an aggregate of *two hundred and twenty-six* patients, who have been under their care since its organization.

This result shows a continued and increasing confidence in the Infirmary, on the part of those who seek treatment for diseases of the eye or ear, and must encourage its friends to continue their efforts to provide relief for this class of sufferers.

A charitable institution of this kind merits the interest and support of the public, since everywhere around us there are large numbers of poor afflicted with serious diseases of the eye, who are unable to meet the expense of suitable medical aid. Such patients are for a long time able to attend more or less to their usual labors, and consequently scarcely excite the notice or sympathy of the casual observer. In this condition, however, night and exposure frequently tend so much to increase their maladies, that they are soon unable to labor: the diseases are too often allowed to progress beyond the reach of treatment, and the sufferers, being incapable of gaining a support for themselves and families, are for ever after dependent upon their friends or the public.

To avert these evils, as far as possible, infirmaries have been established in nearly all the large cities of the civilized world,

for the especial treatment of the poor, afflicted with ophthalmic diseases, and in many instances have been most richly endowed by public subscriptions.

From the fact, moreover, that eye infirmaries offer the means of preserving many sufferers from blindness, and consequently from being a burden to the State, as pupils in the Blind Asylum, the legislatures of several States have granted large sums of money for the support of these infirmaries, not only on the ground of humanity, but also of economy.

There is especial need of a good infirmary at Chicago. The city, already large, is rapidly increasing in weath and influence. The population, of which it is the commercial centre, is numbered by millions; few are aware how extensively severe affections of the eye prevail throughout the North-west. There is no public infirmary for these diseases in the Western States, and many patients, who can ill afford the expense, feel obliged to visit the Eastern cities for treatment.

It is hoped the physicians and the people of the State, will give the subject the serious thought the subject deserves.

Officers of the Association.—Walter L. Newberry, President; Charles V. Dyer and Luther Haven, Vice-Presidents; Samuel Stone, Secretary; Edward L. Holmes, Treasurer.

Trustees.—Walter L. Newberry, William H. Brown, Charles V. Dyer, Luther Haven, Ezra B. McCagg, William Barry, Flavel Moseley, Samuel Stone, Philo Carpenter, Rev. N. L. Rice, D.D., John H. Kinzie and Mark Skinner.

Board of Surgeons.—Trustees ex-Officio.—Consulting Surgeons, Prof. Daniel Brainard, M.D., Prof. Joseph W. Freer, M.D.; Attending Surgeons, Edward L. Holmes, M.D., Wm. H. Baltzell, M.D.

ILLINOIS STATE MEDICAL SOCIETY.

At the annual meeting of the Illinois State Medical Society, held in Decatur, on the first Tuesday in June last, the undersigned were appointed a Committee on Practical Medicine.

In order to fully accomplish the object of the appointment,

we must take the liberty to ask the following questions of our medical friends throughout the State, and respectfully solicit answers to the same:

1. What have been the most prevailing diseases in your locality during the year? Give causes, symptoms, treatment, and rate of mortality.

2. Has any unusual epidemic prevailed in your section of country? If so, give character, treatment, etc.

3. Do the ordinary diseases of your region seem to undergo changes from year to year? If so, what are those changes, and what different treatment is necessary?

4. Has Typhoid Fever been prevalent in your section of country? Give your views of the pathology of Typhoid Fever, also, your treatment, etc.

5. Has Cholera Infantum prevailed with you during the year? Give cause, treatment, etc.

6. Has Diphtheria been prevalent with you? If so, give your views of the disease, treatment, etc.

7. Has Stomatitis Materna prevailed in your vicinity? Give suggestions as to causes and treatment.

8. Have you any improvements to suggest in the treatment of any disease?

9. Please give Topographical Description—so far as practicable—of your locality, together with any facts that may come under your notice, which will be interesting to the profession.

Address Christopher Goodbrake, M. D., Chairman of Committee, at Clinton, DeWitt county, Illinois, as early as March 1st, 1860.

CHR. GOODBRAKE,
F. B. HALLER,
D. W. YOUNG,
} *Committee.*

On account of the general interest felt at this moment in the subject of poisoning, as well as the intrinsic importance of the subject, we transfer to our columns the following editorial notices of the Smethurst case, from the London *British and Foreign Medico-Chirurgical Review* and the London *Lancet*,

both authoritative publications in England. We intend to return to the subject of the chemical analysis in the Jumpertz case, which, being at this moment on trial, is not perhaps a proper subject of comment at present.

THE SMETHURST CASE.

The necessary limitation of space prevents us from noticing in the briefest terms upwards of forty other cases of forensic interest which have appeared since our last report in the British and Foreign Journals. We must, however, for the sake of our Continental readers, say a word respecting the famous Smethurst case, which in this country has for some months been the leading medical topic. This case was one in which poison was suspected; but as there was no evidence of poisoning as the cause of death, save in the imagination of men who have gifts in that direction, we could not logically put the case in our toxicological section. The essence of the case is that a woman, forty-three years of age, and having premonitory indications of abdominal disease, became pregnant. That upon the pregnancy there resulted vomiting, an aggravation of the intestinal disturbance and dysentery. In great measure from starvation (owing to the inability of the stomach to retain food), to which must be added the exhaustion produced by the dysenteric disease, death was the result. *Facilis descensus averni:* the medical philosophers who attended the case, not appreciating the meaning of the previous history of the woman, ignoring altogether the fact of pregnancy, and mistaking the symptoms which peculiarly mark starvation, came to the hypothesis that the case was one of slow irritant poisoning. Nevertheless, they took no pains for many days—not indeed until death was at the door—either to remove the poisoner, to look for poison, or to give an antidote. On the contrary, they prescribed for the case as one of ordinary disease almost to the end. When, granting that the case had been a case of poison, it was too late to do anything, the supposed poisoner was arrested, the antidote was supplied, and the poison was searched for. Suffice it to add, that no poison was found in the possession of the prisoner; none *satisfactorily* in the body of the patient after her death; that the post-mortem appearances were admitted to be dysentery; and that the fact of the existence of pregnancy was revealed by the knife. In spite of all, the vague hypothesis was adhered to. A man was tried for his life, and a jury, overpowered by the dogmatic, and, we may add, stereotyped statement of the scientific witnesses for the prosecution; to wit, that

death could only be attributed to irritant poisoning—condemned the prisoner to the scaffold. Since the condemnation the country has risen up against it, and the Secretary of State for the Home Department, than whom a more logical mind is not in this realm, has granted a reprieve from death. The nation is thus happily relieved from a national sin, and English science rescued from indelible disgrace.—*Med.-Chir. Rev.*

THE CASE OF THOMAS SMETHURST.

The reprieve of Smethurst may be regarded as the verdict of the country. It is a remarkable example of the value of public discussion. It is, above all, a signal proof of the pure love of justice that stamps the national character and institutions of England. It would be difficult to point to any convict who has excited so little personal sympathy as Smethurst. His previous career, and the circumstances of his connection with Miss Bankes, are so marked by low selfishness that no feeling akin to tenderness or pity can be entertained towards him. Not even the plea of passion too wild to bear the restraints of law or religion can be urged in extenuation of his conduct. Sordid, calculating venality appears through all. Notwithstanding the absence of any personal quality or collateral circumstance to stimulate the movement in his favor, he has been snatched from the gallows by the almost unanimous decision of his countrymen, who, reviewing the case upon its abstract merits, find that the heavy charge upon which he was found guilty by a jury is not substantiated by the evidence. Casting aside all feeling for or against the prisoner, unswayed by the circumstances that seem to establish a motive for the crime and to justify a strong suspicion of foul play, the country, acting as a court of appeal, has deliberately analyzed the evidence, and, finding it defective in the essential points, has cancelled the verdict of the jury. It may be doubted whether in any other country a revision of the sentence of a legally-constituted tribunal would be conducted by the press and by the people in a temper equally free from excitement, and in a spirit so purely vindicatory of public justice. The history of such a case as this may well be referred to as an answer to those foreign jurists who reproach us with the want of a court of appeal in criminal cases. With a free press, with the habit of judicial investigation, and the simple love of justice that animates every citizen amongst us with the resolve to see right dealt out to every one, we stand, perhaps, in less need of a complicated ascending scale of criminal courts than is experienced in countries where the tribunals receive little or no aid from external discussion. In this case it may be said that,

through the machinery of the press, not Smethurst, but the Law, has enjoyed the benefit of the experience of the entire body of the medical profession, in the elucidation of the obscure scientific questions upon which the verdict turned. The evidence elicited before the jury has not only called forth fresh testimony, but has naturally challenged ths criticisms of the profession. The result is a partial, if not wholly satisfactory, vindication of justice. The spirit of English law yet calls for something more than a reprieve. If it be admitted—and the reprieve actually admits so much—that Smethurst is not proved to be guilty of the crime of murder for which he was arraigned, he is logically and justly entitled to an absolute discharge. If he is still held a prisoner, it must be either for the crime of which he is admitted to be innocent, or for some other crime for which he has not been put upon his trial. But we cannot in this place pursue the inconsistencies of our criminal law. We may leave them with the less regret, under the conviction that the resulting evils are mitigated by the wholesome action of public opinion. Although Thomas Smethurst, now declared not proved guilty of murder, can only be released by the granting of her Majesty's pardon for that offence, the gross inconsistency that strikes the moral sense can work but little harm, in the face of that universally-operating public opinion which sees through the fiction, and reduces it to a technical form.

We reserve for our next publication a critical epitome of this now celebrated cause, the special object of which will be to bring out its medico-legal bearings. Our present purpose is simply to advert, in a general manner, to the public interest of the case as illustrating the advantages accruing from a free discussion of the evidence; and the position more especially, of Medicine as an ally of the Law. To some, perhaps to many, it may appear that Medicine in this case has been at fault; that since it was made to support a charge of the heaviest degree of criminality, which upon more rigorous examination could not be sustained, scientific testimony has lost its claim to some of that confidence which it challenges before the world. It is no part of our duty to defend indiscriminately every medical witness. The profession are only concerned for the just credit of Medicine. We may observe, that if Medicine may seem to have sustained some little hurt in this trial, it is not because science was at fault, but because she was unfortunate in the particular individuals who chanced to be her exponents. It so happened that the witnesses for the prosecution failed to grasp all the scientific elements in the question before them, and consequently, to appreciate at their just value the facts which fixed their at-

tention. But their omissions have been amply supplied by the correcting experience and more deliberative judgment of the witnesses for the defence, and still more by the re-examination of the evidence by the general body of the profession. In this way Medicine has in the end fully asserted her competency and usefulness. By common consent, the public has admitted the insufficiency of the moral and general evidence to justify conviction for the crime of murder. The moral evidence at most raises a presumptive motive—suggests that Smethurst had an interest in destroying Miss Bankes. Of direct evidence, such as the possession of poison by the prisoner, mixture of poison with the food or medicine, there is none. The whole case rested, in the first place, upon the scientific evidence. That must first be proved which Medicine only is competent to prove—namely, that the deceased died by poison; then the moral and general evidence which suggests that the prisoner was the most likely person to administer the poison, comes to bear. But unless the first—the strictly medical point—be decided in the affirmative, the second point has no existence—the general evidence goes for nothing. Now if, trusting too implicitly to the partly erroneous and generally fallacious testimony of the scientific witnesses for the prosecution, the jury came to the conclusion that Miss Bankes did die from the effects of poison, the appeal after the trial to the wider experience and unprejudiced judgment of the profession completely proved the fallacy of the first conclusion, and established the perfect competency of Medicine to pronounce a satisfactory decision upon the case as presented to the public. That decision has, in fact, been accepted by the public; and its ratification by the Home Secretary is the final acknowledgment of the services that science has in this case rendered to the administration of justice.—*Lancet.*

BOOK AND PAMPHLET NOTICES.

A System of Surgery—Pathological, Diagnostic, Therapeutic and Operative. By Samuel Gross, M.D., Prof. of Surgery in Jefferson Medical College, etc. etc. Illustrated by 936 Engravings. In two volumes. Pp. 1162 and 1196. Philadelphia: Lea & Blanchard. 1859.

We have deferred the notice of this voluminous work of Prof. Gross in order to be able to speak with better knowledge of its value, but confess that up to the present time we have not been able to do more than examine some of its more important chapters. Indeed the perusal of 2358 pages, the

greater part of which is necessarily made up of compilation from various sources, is a task to which we feel but little disposed, more as the merits and defects of the author are sufficiently known from his former works.

Notwithstanding the great extent of this work, it were easy to point out defects as to completeness. The pathology it inculcates is, in many instances, contrary to our own views, as well as to those generally believed. Many of the illustrations are familiar to the profession from having been used in other volumes. The subject is much too vast to be fully treated in a book even so ponderous as this; and when the chapters on pathology are compared with the work of Paget, those on fractures with that of Malgaigne, on operations on the eye with that of Walton, etc., the advantage of these monographs is very apparent. These, however, are difficulties which no writer could overcome. When Prof. Gross speaks of his own experience and gives first illustrations, his work is throughout interesting and readable. The labor of its preparation was so great that we cannot but admire the courage which would prompt the undertaking. Without presuming to compare it with such works on surgery as that of Boyce in French, or Coope's Surgical Dictionary in English, we can confidently recommend it as a useful treatise for reference, and a valuable and ever necessary addition to every surgical library.

EDITORIAL.

WOORARA AS A REMEDY FOR TRAUMATIC TETANUS.

We notice that M. Vella, through M. Bernard, has presented to the Academy of Sciences, Paris, a paper on this subject. M. Vella had concluded that the action of the woorara is antagonistic to that of the cause of tetanus. He accordingly applied it to some of the wounds of patients affected with tetanus, and was of the opinion that the spasms were in a measure controlled by it.

While we approve the effort of M. Vella to search for new

remedies against this intractable disease, we cannot adopt either his theory or his practice in this instance. Woorara was, during the latter part of the last century, tried for tetanus in London, without success. Having noticed this fact in an old journal, which is not at hand, we tried it as an antidote to strychnia, but found that mixing the two poisons together killed much more quickly than the employment of either singly. We have tried it also upon ulcers. It is, when mixed with simple cerate in proportion of 10 grs. to the ounce, quite harmless, produces no perceptible constitutional effects, and acts as a stimulant to the sore, suppressing the discharge of pus, and causing the surface to be covered with a thin layer of fibrine.

SURGICAL ITEMS.

1. *Reductions of Dislocations of the Hip Joint by Manipulation.*

Since making the note published in our issue for October, a case of this accident has fallen under our notice, which differs in some respects from those heretofore met with. It was that of Page, the baggage-man, injured at the accident on the Chicago and Northwestern R. R., near Watertown, Wis. The head of the bone lay in the ischiatic notch. Near three days had elapsed since the accident. Efforts at reduction had been made by a surgeon from Milwaukee, who, after applying, as we were informed, a very great mechanical power, without success, pronounced it a *fracture of the neck of the femur*, but left it without applying any dressing. The ligaments of the hip joint appeared to be entirely torn across and much contusion produced, as the member could be moved more freely than is usual in such cases.

Reduction by Reid's method was effected, but less readily than is usual. After the reduction, a slight tetanic spasm supervened, which lasted several days, but which, at our last visit, Nov. 24, three weeks after the accident, had almost entirely disappeared.*

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* We have felt called upon in this case, contrary to uniform practice, to

2. *Exsection of five Tarsal Bones for Caries.*

J. B., aged 26 years, was received into the Chicago City Hospital, Nov. 8, 1859, on account of a chronic enlargement of the bones of the tarsus of the right foot. The disease was of eighteen months' standing, and involved the bones between the head of the metatarsus and the ankle. The patient was in good health; had suffered little pain.

Wednesday, Nov. 9, 1859, the operation was performed as follows: An incision was made across the tarsus at its junction with the metatarsus, and a flap raised toward the ankle. The three cuneiform, the naviculare and the cuboid bones were found diseased, and removed. Suppuration had already taken place between the middle cuneiform and the second metatarsal bone, the head of which was cut away with the cutting forceps. The *arteria dorsalis pedis* alone required a ligature. The edges of the wound were stitched together, and the member placed in a fracture box. No accident occurred. The wound is at the present time nearly cicatrized, and the foot only appears shortened.

3. *Strangulated Femoral Hernia.*

This was an old hernia in a patient, 62 years of age. A truss had been worn without the reduction being fully effected, so that a mass of omentum had become intimately adherent to the sac, so much so that this was hardly distinguishable. One mass of omentum passed upward and outward above Poupart's ligament, another in the opposite direction, while in the midst was a small knuckle of intestine of recent protrusion.

The strangulation had existed three days, and frequent efforts at reduction had been made. The separation and reduction of the omentum after the stricture was divided, was a work of much difficulty, but this was at length effected. The operation was performed, Nov. 19, 1859. Up to the present date (Nov. 22) the patient is doing well.

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make a statement of facts, which may seem to reflect upon the surgeon previously called, in consequence of the attacks repeatedly made upon us in the *Milwaukee Daily News.*

4. *Amputation at the Hip Joint.*

This, the third we have had occasion to do, was performed Nov. 16, at the City Hospital. The patient, a woman, aged 30 years, had a large encephaloid tumor of the left lower member, which extended from the middle of the leg to near the hip. A bony and brain-like tumor, of large size, had been removed from behind the knee of this patient eighteen months previously, by Prof. Freer, and she remained well for about one year, when the commencement of the present growth was perceived.

The vascularity of the tissues, the vessels of which were of immense size, rendered the operation difficult, and it was necessary to tie the principal arteries before finishing the operation, which was completed, however, without unusual loss of blood, owing to the care of Professors Freer and Rea, in compressing the vessels as soon as divided.

For forty-eight hours the patient did well, but at the end of that time tympanitis and nausea with vomiting occurred, and she died sixty hours after the operation.

5. *Resection of the Head of the Humerus for Gunshot Wounds.*

November 27, we were called to consult about the case of W. B., of Kendall county, Illinois, who, thirty-two hours previously, had received a charge of buckshot in the left shoulder, immediately below the head of the *humerus*. The charge was supposed to have been fired with the intention of committing murder. The bone was extensively shattered, some of the shot glanced, and came out in front on the left side of the chest. Some appeared to have penetrated the thorax, as there was emphysema, and had been some expectoration of blood. As the sensibility and temperature of the member were preserved, we advised the removal of the shattered fragments, and performed the operation. As the fracture extended to the head of the bone, this was also removed.

☞ The article by Dr. Gibbs on the use of white lead in burns should have appeared under the head of selections instead

of that of original articles;—it had already been published in that excellent journal the *N. Y. Med. Monthly*.

We have recently used it in the City Hospital on a case which seemed quite hopeless from its extent, and it seemed for several days to exert a very favorable influence on the condition of the patient, although his condition is still doubtful.

COLLEGE OF PHARMACY.

An organization under this name has been effected in Chicago. Among the appointments, those of Prof. Blaney to the chair of Chemistry, and F. Scammon to that of Pharmacy, may be noticed as excellent. Similar attempts in other cities have, with few exceptions, failed, but we trust that this may be more fortunate.

RUSH MEDICAL COLLEGE.

It may be gratifying to the alumni and friends of this College to learn that the recent separation of several members of the Faculty has not in the slightest degree diminished its prosperity or changed the regularity of its operations. On the contrary, the present class is the largest which has attended its courses since its organization, with the exception of those of the years 1847, '48, '55 and '56. The newly elected professors are giving courses of lectures at once solid and brilliant, which recall those of the earlier years of its existence. Additions are being made to its collections. Unity of purpose to place the College in the first rank in regard to the value of its courses and the extent of its facilities prevails among all its members.

THE JOURNAL.

With the present number terminates the second year of its existence under its present name, the sixteenth of the entire series. During the nine months which we have had charge of it we have been cheered and encouraged by the approbation of its patrons and the courtesy of our friends of the medical press. Our list has increased; the medical journals throughout the entire country, with a single exception, have shown a friendly spirit. We enter upon a new year with hope and confidence.

The same general plan will be continued in its management. In order to add to its interest, however, a series of illustrated contributions to surgery by the senior editor will be given during the year. There is one point upon which a word of explanation may be due to some of our subscribers. We have at different times sent out printed slips to those who are in

arrear. These seem to have been taken by those who have paid as addressed to themselves as well as to others.

This was not intended; and our reason for sending them to all was that so many cases were found to exist where subscriptions have been paid, or claimed to have been paid, but which the books did not show, that we adopted this course (borrowed from some of the best of our exchanges) as the surest method of communicating with those in arrear.

In order to guard against the recurrence of such an accident, and to remedy as far as possible the irregularities which have heretofore crept in, Prof. Ephraim Ingals will hereafter be associated with the senior editor as joint proprietor and editor. Dr. Ingalls will have charge of the books, circulation and exchanges, and communications may be addressed to him or to the senior editor.

PROSPECTUS OF THE CHICAGO MEDICAL JOURNAL FOR 1860.

This Journal will be continued in its present size and form. It will embrace—

1. *Original Articles* of value: communications from former contributors, and others, are earnestly solicited.
2. *Book Notices*, embracing such mention of all important works as will enable our readers to form a correct estimate of the value of each.
3. *Selections* of interest from American and foreign journals.
4. *Editorial* on subjects demanding notice.
5. *Miscellaneous Medical Intelligence.*

It will be the object of the editors to make the Journal valuable as a scientific and practical work, rather than a medium for discussion of medical politics.

We must here invite the attention of our subscribers to the importance of remitting our dues promptly. While a large number have already complied with our terms, there are, we regret to say, still many, well known to us as honorable and responsible gentlemen, who remain indebted to the Journal for one or two years' subscription. We respectfully and urgently solicit of these their immediate attention to this subject.

Terms, $2 per annum, payable in advance; if not paid within three months from the commencement of the year (April 1, 1860), the price will be $3.

Clubbing.—Six copies will be sent on the receipt of $10.

The Surgical Clinic of the College will be held on Saturday afternoon of each week at the College. All operations performed gratuitously.

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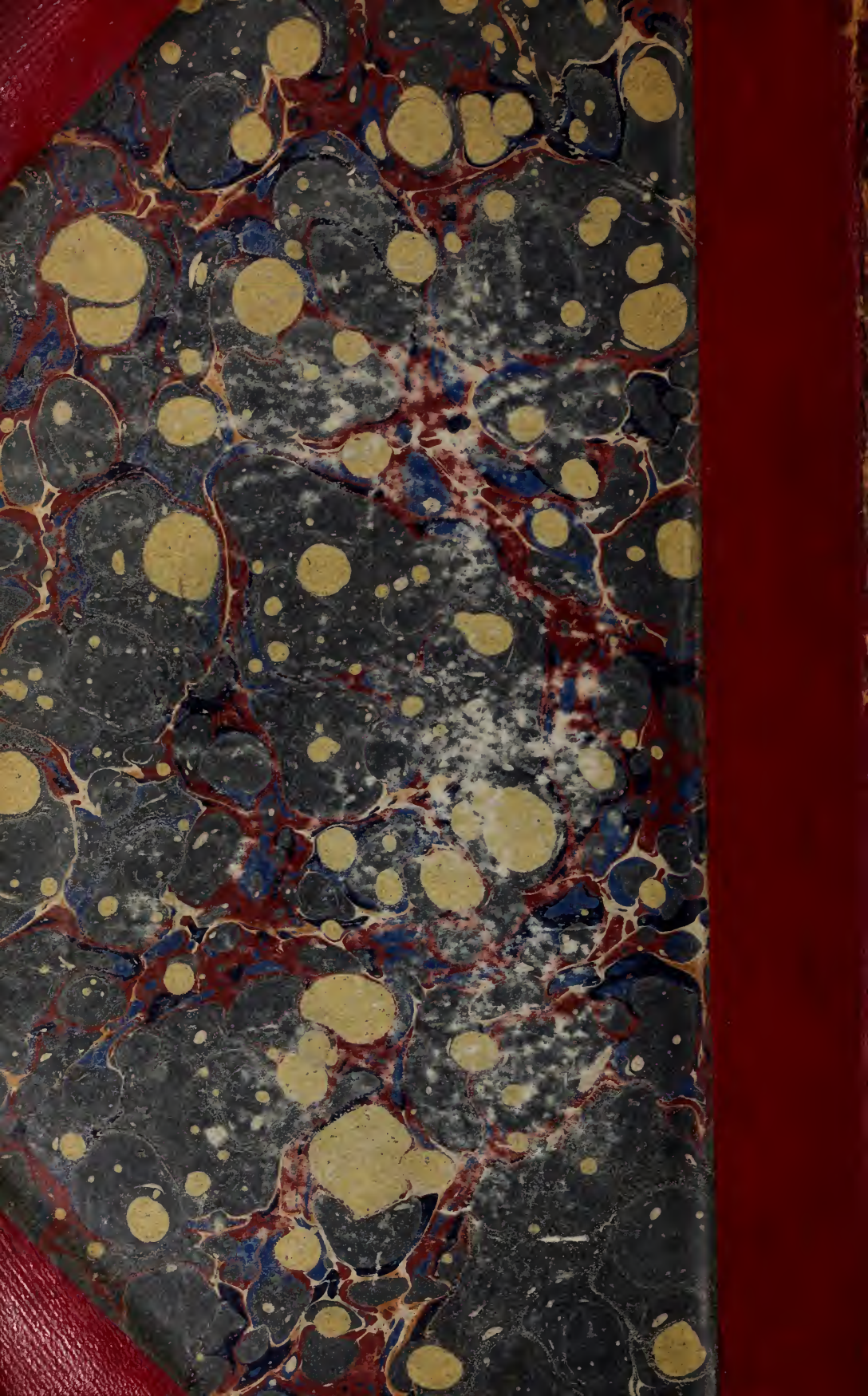
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